

**BURGH OF GREENOCK**

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# **Annual Report**

on the

## **Health of the Burgh**

**FOR THE YEAR 1933**

**BY**

**ALEXANDER JOHNSTONE, M.C., M.A., M.D., CH.B. D.P.H.**

*Medical Officer of Health*



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## LIST OF STAFF.

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Medical Officer of Health.

Alexander Johnstone, *M.C.*, *M.A.*, *M.D.*, *Ch.B.*, *D.P.H.*

Assistant Medical Officer of Health.

Helena M. Shanks, *M.B.*, *Ch.B.*, *D.P.H.*

Health Visitors.

Joan M. Pollok.

Mary Duncan.

Mrs Jessie Macfarlane.

Jean Wood.

Mrs Jessie Gillespie.

In addition all the nurses of the Greenock and District Nursing Association act as part-time Health Visitors under the Maternity and Child Welfare or Tuberculosis Schemes.

Public Health Staff.

John McCrone, Epidemic Officer.

Minnie Sinclair.

Margaret C. MacElwee.

Helen C. Bog.

Ella S. Sloan.

Elsie Greenham.

Elizabeth McKellar.

Maternity Hospital.

Ethel C. Thomson.

Marion Currie.

Joan MacDonald (Took up duty 7/1/33).

Venereal Diseases Special Treatment Centre.

John Carson, Orderly.

Disinfecting Station.

Patrick O'Kane, Station Disinfecting Officer.

Daniel McLean, District Disinfecting Officer.

Reception House.

Barbara Byle, Matron.

Part-time Officers.

John Miller, *M.B.*, *Ch.B.*,

William A. Milne, *M.B.*, *Ch.B.*, } Surgeon Accoucheurs.

Randolph Douglas, *L.D.S.*, *D.D.S.*, *L.R.C.P.*, Dental Surgeon.

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To the Department of Health for Scotland,  
and the Local Authority of the Burgh of Greenock.

LADIES and GENTLEMEN,

I beg to submit the Annual Report on the Health and Sanitary condition of the Burgh for the year 1933.

The scarlet fever epidemic of last year continued with increased severity and reached its peak in October. The disease remained of comparatively mild type.

The birth-rate is the lowest on record in the Burgh.

The death-rate from non-pulmonary tuberculosis shows a marked decline, and is considerably lower than any previously recorded.

The Port Sanitary Regulations (Scotland) 1933, came into force on 1st May, and considerably increased the work and responsibility of the department with regard to shipping.

I wish again to thank the staff of my department for their ungrudging help and loyalty, and my colleagues in the Corporation for their continual co-operation during the year.

I am,

Ladies and Gentlemen,

Your obedient Servant,

ALEXANDER JOHNSTONE,

Medical Officer of Health.

## STATISTICAL SUMMARY.

1933.

Population as estimated at the middle of 1933,	...	79,486
Acreage of Burgh,	... ..	3,170
Density of population per acre.	... ..	25.07
Birth-rate,	... ..	20.6
Illegitimate birth-rate per 100 births.	... ..	4.9
Marriage-rate (uncorrected),	... ..	5.9
Death-rate—all causes,	... ..	15.0
Death-rate—all tuberculosis,	... ..	1.06
Death-rate—tuberculosis of respiratory system,	... ..	0.88
Death-rate—non-pulmonary tuberculosis,	.. ..	0.18
Death-rate—principal epidemic diseases,	.. ..	1.33
Infantile mortality rate,	... ..	108

All rates given are corrected for transfers.

## PUBLIC HEALTH DISTRICTS.

- 
- A—EAST DISTRICT—corresponds to municipal wards Nos. I., II., and III.
- B—EAST CENTRAL DISTRICT—corresponds to municipal wards Nos. IV. and V.
- C—WEST CENTRAL DISTRICT—corresponds to municipal wards Nos. VI. and VII.
- D—WEST DISTRICT—corresponds to municipal ward No. VIII.





# Medical Officer's Report for the Year 1933.

## VITAL STATISTICS.

**POPULATION.**—The Registrar General's estimate of the population of the burgh to the middle of 1933 was 79,486, and this is the figure which has been used in all statistical calculations.

This number indicates an increase of 99 on last year's figure.

The natural increase of population (i.e. excess of births over deaths) was 443. This shows a definite reduction from last year's figure of 541, and is considerably below the average for the past ten years, namely 737.

**BIRTHS AND BIRTH-RATE.**—The number of births registered during 1933 was 1,634. This number on correction becomes 1,638 (818 males and 820 females) and the equivalent rate is 20.6. Last year's figure was 21.5 and the average for the last five years is 22.8.

This birth-rate is again the lowest on record in the burgh, the previous lowest figure having occurred last year, and the lowest before that in 1927 when it was 22.17. It is equal to only 54 per cent. of the birth-rate during the period 1881-1885.

Tables I. and IV. give further information in this connection.

**INFANTILE MORTALITY.**—The number of deaths of children under one year of age was 177, a decrease on last year's figure of 206, and below the average for the last ten years, namely 200. The corresponding infantile mortality rate is 108, which is less than last year's figure of 121, but above the average for the last ten years, namely 100. The average infantile mortality for the period 1881-1900 was 135.

Although this year's figure does not appear to be satisfactory when compared with that of Scotland as a whole, it must be remembered that Greenock is an entirely industrial community, and cannot therefore bear satisfactory comparison with many more favoured districts. Scrutiny of Table IV., however, shows that the infantile mortality figure is slowly but surely being reduced and gives considerable hope for the future.

Atrophy, debility and marasmus was responsible for 22.03 per cent. of the total infantile deaths, premature births 17.51, pneumonia 12.42, diarrhoea and enteritis 11.86, whooping cough 10.73, convulsions 6.21, and bronchitis 5.64.

DEATHS AND DEATH-RATE.—The number of deaths registered in the burgh was 1,201. When corrected for transfers this figure becomes 1,195 (621 males and 574 females). The corresponding death-rate is 15.0. This figure is slightly higher than last year (14.6) and is also above the average for the last five years, which is 14.66. It is equal to approximately 67 per cent. of the death-rate for the period 1881-1885. The average age at death was approximately 51 years.

CAUSES OF DEATH.—The following were the chief causes of death during 1933:—Heart disease 156; malignant tumours 131; cerebral haemorrhage 116; pneumonia 102; tuberculosis (all forms) 84; congenital debility, premature birth, malformations, etc., 78; bronchitis 68; other diseases of nervous system and sense organs 54; whooping cough 44; old age 44; influenza 39; diarrhoea 30; convulsions 28.

Tables II. and III. give further information regarding causes of death, which may be conveniently grouped as follows:—

*Principal Epidemic Diseases.*—Whooping Cough was responsible for 44 deaths, 19 of which were in children under one year of age, and 24 in children between the ages of 1 and 5. Influenza was the cause of 39 deaths, two in children under one five in children between the ages of one and five, and fourteen in persons over the age of 55. Scarlet Fever produced 9 deaths, diphtheria 8, cerebro-spinal fever 1, and other epidemic diseases 5.

The total number of deaths from this cause was, therefore, 106, which produces a death-rate of 1.33. These figures are definitely lower than the corresponding figures last year,

namely 131 and 1.64. There were no deaths from measles during the year, but there was a very marked increase in the number from whooping cough, the number last year being 5.

*Tuberculous Diseases.*—During the year the number of deaths from pulmonary tuberculosis was 70, and the corresponding death-rate 0.88 as against 53 deaths and a rate of 0.66 last year.. The average rate for the last five years is 0.81. Tuberculosis of other organs caused 14 deaths, as against 29 last year. The non-pulmonary death-rate is 0.18, which is very much below last year's figure of 0.36 and also below the previous quinquennial average 0.31. This non-pulmonary death-rate is very much lower than any previous figure, but whether it indicates a permanent improvement or not it is impossible to say.

The total tuberculosis rate is, therefore, 1.06, which, although above last year's figure of 1.03, is definitely below the average for the last five years, namely 1.19. This figure seems to give definite evidence that the death-rate from tuberculosis is certainly and steadily decreasing.

*Malignant Disease.*—Cancer in its various forms was responsible for 131 deaths (65 males and 66 females) and the death-rate was 1.64. Last year the number of deaths was 106 and the rate 1.33. The average number of deaths for the last ten years is 102 (45 males and 57 females).

A survey of the cancer mortality figures for the last thirty-three years is indeed disquieting and gives food for thought. The five yearly average rates for the period 1900-1933 are as follows:—

1900-1904,	-	-	-	-	0.88
1905-1909,	-	-	-	-	0.79
1910-1914,	-	-	-	-	1.04
1915-1919,	-	-	-	-	1.19
1920-1924,	-	-	-	-	1.14
1925-1929,	-	-	-	-	1.27
1930-1933,	-	-	-	-	1.43

The mortality from cancer in the burgh has thus nearly doubled in the last thirty years, but the figures for Scotland as a whole show that Greenock is not unique in this respect. In the five years ending 1860 the rate for Scotland was 0.34, in the next period 0.40, and this increased steadily until during the five years 1926-1930 it was 1.43. In 1931 it was 1.48 and in 1932 it rose to 1.53.

In the valuation of these figures one must remember that the population is living longer now than it used to do, but this cannot account for more than a portion of the death-rate increase. Cancer is increasing.

The chief hope of achieving control of this disease lies in finding the cause of the condition, and the search is being constantly carried out in many laboratories to this end. Until success is attained, however, it behoves all members of the community to look at the danger sensibly and seek advice early when suspicious symptoms appear, instead of nursing a secret dread for fear that dread is proved a reality. Surgery can cure in some cases if the disease is got early enough. Radium can deal with others, so that the outlook even at present is not by any means hopeless.

*Diseases of the Circulatory System.*—The deaths from diseases of the circulatory system numbered 177, of which 156 were from diseases of the heart and 21 from other causes. The heart disease death-rate is 1.96 as against 1.33 last year, and 1.45 the last five yearly average.

*Diseases of the Respiratory System.*—These diseases produced 181 deaths during the year, which figure gives an equivalent death-rate of 2.27. These figures are below those of 1932 which were 203 deaths and a rate of 2.55. The average number for the last ten years was 201. The majority of these deaths occurred during the first quarter of the year.

Pneumonia was responsible for 102 of the total respiratory deaths, and the death-rate from this cause is 1.28. Last year the number was 126 and the death-rate 1.58, the average rate for the last five years being 1.44. Of these deaths 23 occurred in children under one year, 35 in children aged one to five years, and 15 in persons over the age of 65.

Bronchitis accounted for 68 deaths, and of these ten were in children under the age of five, while 39 were in persons over 65 years of age. The death-rate was 0.85 as against 0.86 last year, and the previous quinquennial average 0.91.

*Diseases of the Nervous System and Sense Organs.*—The deaths classified under this group were 170, of which 116 were due to cerebral haemorrhage, embolism or thrombosis. The death-rate from cerebral haemorrhage, embolism and thrombosis is 1.43, which is the same as that of last year, but above the last five yearly average namely 1.30.

*Diseases of the Digestive System.*—Deaths referable to the digestive system numbered 173, of which 30 were due to diarrhoea and enteritis, and of these 21 were in children under two years of age, 10 were caused by appendicitis, 9 by gastric and duodenal ulcer, 6 by diseases of the liver other than cirrhosis, and 18 by other digestive diseases.

The number of deaths from diarrhoea and enteritis in children under two years of age was 30 in 1932 and the last quinquennial mean is 20.

*Diseases of the Genito-Urinary System.*—The deaths from diseases of the genito-urinary system totalled 39, of which 27 were due to nephritis and 12 to other conditions.

*Diseases of Pregnancy and Childbirth.*—The Registrar General shows 12 deaths from this cause, five being due to puerperal sepsis and 7 to other puerperal causes.

Investigation in this department, however, showed that there were 13 maternal deaths during the year as against 17 last year. The gross maternal death-rate, therefore, is 7.9 per 1,000 births as against 9.9 in 1932.

The causes of death may be classified as follows:—

(I) Conditions connected with pregnancy and parturition.

Eclampsia,	-	-	-	-	-	3
Puerperal Septicaemia,	-	-	-	-	-	5
Ante-partum haemorrhage,	-	-	-	-	-	1
Shock following confinement,	-	-	-	-	-	1
Anaemia following post-partum haemorrhage,	-	-	-	-	-	1

(II) Conditions associated with, but not directly connected with pregnancy or parturition.

Cardiac disease,	-	-	-	-	-	1
Peritonitis following perforation of oesophageal stricture,	-	-	-	-	-	1

Nine of the thirteen cases received some degree of antenatal supervision, and in four there was no supervision of any kind.

Scrutiny of the Registrar General's figures since 1900 gives us some interesting information. The following are the quinquennial maternal death-rates over the period:—



Period.	Deaths from Puerperal Sepsis.	Other Puerperal Deaths.	Total Puerp-ral Deaths
1900-1904,	2.46	2.84	5.31
1905-1909,	1.59	3.53	5.12
1910-1914,	1.26	5.37	6.63
1915-1919,	0.88	4.95	5.83
1920-1924,	1.58	4.71	6.29
1925-1929,	1.80	4.16	5.96
1930,	—	4.76	4.76
1931,	1.62	6.49	8.11
1932,	1.76	5.28	7.04
1933,	3.05	4.27	7.32

These figures would appear to indicate that deaths from puerperal sepsis are not tending to increase materially, but that deaths from other diseases of pregnancy and childbirth are definitely so. There are, however, so many factors entering into the production of these rates and such considerable doubt as to whether the figures over the period of years are strictly comparable, that the result of the investigation at present being carried out by the Department of Health is awaited with interest in the hope that some definite lead may in time be given towards the finding of the real trend of maternal mortality and its ultimate reduction to an irreducible minimum.

*Diseases of Early Infancy and Congenital Malformations.*—Deaths from these causes numbered 77, and may be classified as follows:—Atrophy, debility, and marasmus 39; premature birth 31; congenital malformations 6; other diseases peculiar to early infancy 1. Last year the number was 72 and the average for the last five years is 82. Further information regarding diseases of children under one year of age will be found in the maternity and child welfare section of the report.

Under this heading the Registrar General shows 78 deaths, but one of these children was over one year of age, and has consequently been omitted from this paragraph.

*Violent Deaths.*—These numbered 34, of which six were apparently suicides (5 males and 1 female), and 28 accidental (18 males and 10 females). The corresponding figures for last year were six suicides (all males) and 33 other violent deaths (20 males, 13 females), while the average for the last ten years was 4 deaths from suicide and 36 from other violence.

STATISTICAL COMPARISON.—The following table gives a comparison of the various rates in the different public health districts and the average age at death as estimated in this department:—

District.	A.	B.	C.	D.
	East.	East Central.	West Central.	West.
Population, ...	27.129	13,784	24,788	13,785
Density per acre, ...	24.22	101.35	40.04	10.64
Birth-rate, ...	26.83	19.37	21.05	11.38
Infantile Mortality-rate, ...	100.27	131.08	120.68	38.21
General death-rate, ...	13.97	16.90	15.20	14.94
Tuberculosis death-rate, ...	0.99	1.45	1.04	0.79
Average age at death, ...	47.98	48.88	47.16	62.51

### INFECTIOUS DISEASE.

The total number of cases of infectious disease ascertained during the year 1933 was 3,451, which is considerably below last year's figure of 4,908, but above the mean of the previous quinquennium 3,181. The incidence rate of infectious disease in the community as a whole during the year was 43.41 per 1,000 of the population.

Further information regarding infectious disease will be found in Tables V. to VIII.

MEASLES.—There were 314 cases of this disease notified during the year, but no deaths occurred.

Last year 3,020 cases were notified, and the average for the last five years is 1,515. Three of the cases had also whooping cough and two chickenpox. Three cases were removed to hospital.

No adequate hospital facilities for this disease are yet available, but a proposal was considered in December by the Joint Hospital Board to provide a nurses' home and two pavilions for the treatment of tuberculosis cases. If these are provided the deficiency will be made good.

WHOOPIING COUGH.—Eight hundred and sixty-four cases were notified, with the highest incidence in April. Last year's figure was 262 and the last quinquennial mean 455. One case had also scarlet fever, 3 cases measles, and 4 chickenpox.

The number of cases in children under five years of age was 423, and there were 44 deaths during that period of life. The incidence rate over the age period 0-5 is, therefore, 52.65, the death-rate 5.47, and the case mortality rate 10.40 per cent.

SCARLET FEVER.—One thousand one hundred and twenty-one cases were notified with the highest figure in October. Last year's number was 849 and the average for the previous five years 455. There were 9 deaths. Two cases had also diphtheria, 3 chickenpox and one whooping cough. The incidence rate over the whole population is 14.10 and the case mortality rate 0.80 per cent.

This is the largest number of cases of scarlet fever that has occurred in the burgh for at least thirty-one years. It is a part of the epidemic which began in 1932 and reached its height in the month of October. As was stated in last year's annual report, the epidemic prevalence was widespread over Scotland. There was no evidence of local infection carried through milk or other similar means.

The following Table gives the age periods and shows that the heaviest incidence fell on the school population :—

All Ages.	Under 1	1-5	5-15	15-25	25-45	45-65	65 up.
1,121	6	362	654	64	34	1	0

DIPHTHERIA.—There were 163 cases of diphtheria discovered during the year. The number last year was 115 and the last five yearly average 151. The incidence rate over the whole population is 2.05 and, as the deaths numbered 8, the case mortality rate is 4.90 per cent. Two cases also had scarlet fever and one case chickenpox.

*Contacts.*—Swabbing of the throats of contacts of diphtheria was carried out in 146 instances where it appeared to be necessary and 12 such persons gave a positive result; all of these persons were admitted to hospital and 5 developed symptoms of the disease.

CHICKENPOX.—Seven hundred and sixty-six cases were notified during the year, mostly in March, November, May and January. There were no deaths. The number last year was 483 and the last five yearly average 494. Two cases had also scarlet fever, two measles, and one diphtheria.

This disease is no longer compulsorily notifiable, but many cases are still notified by the parents. As in other voluntarily notifiable diseases, there seems little doubt that many condi-



tions are notified which are not chickenpox, e.g. impetigo and other septic skin conditions. This is a disadvantage from a school exclusion point of view, but short of verification of every case by the Public Health Staff, there seems to be no way of getting over the difficulty.

ENTERIC FEVER.—Six cases of this group were notified this year as against two last year, and a previous quinquennial average of nine. The cases were of the Paratyphoid B. type and all were admitted to hospital. There were no deaths.

No specific source of infection was discovered in any of the cases.

In connection with paratyphoid fever an interesting occurrence took place during the year. A case of paratyphoid B. fever occurred in Glasgow and it was found that the patient had stayed at a house in Greenock about the time when infection was presumed to have occurred. It was known that two members of the Greenock household had had a condition suspicious of paratyphoid B. fever two years before. At that time blood from all the other persons in the house was found to be negative for this disease.

Specimens of faeces were taken from these two persons and one was found to contain Paratyphoid B. organisms. The person was admitted to hospital as a presumptive carrier and treated, thereafter producing three negative results. No further case has since been traced to this source.

PNEUMONIA.—One hundred and fifty-three cases were discovered, 61 being of the acute primary type, 16 influenzal and 76 presumably secondary to some other condition. The highest incidence occurred in the months of January, February and March. Last year's number was 172 and the average for the last five years was 140. Two cases were removed to hospital for treatment, and the number of deaths was 102.

CEREBRO-SPINAL MENINGITIS.—Seven cases of this disease were notified, including six in Greenock Royal Infirmary. Four of these died. Of the patients who died one was certified as having died from cerebro-spinal fever, two from meningitis and one from encephalitis lethargica. No trace of the source of infection was discovered.

SMALLPOX.—There were no cases of this disease during the year.

*Vaccination.*—The number of births registered in the east and west registration districts of the burgh during 1932 was 1,657. By the end of the year under review 365 of these children had been successfully vaccinated, 15 were found to be constitutionally insusceptible, 123 had died before vaccination had been carried out, in 6 a medical certificate of postponement had been issued, and 13 left the district or were otherwise unaccounted for, while declarations of conscientious objection had been made in respect of 1,135. 68.49 per cent. therefore of the children available for vaccination were not vaccinated.

One hundred and sixty-four vaccinations were carried out on 157 children under the maternity and child welfare scheme at the corporaton clinics. In 144 cases vaccination was successful on the first occasion, in nine on the second occasion, in two on the third occasion, while two were considered insusceptible after three unsuccessful attempts.

#### PUERPERAL FEVER AND PUERPERAL PYREXIA:—

- (I) Total number of cases occurring in the area of the Local Authority (corrected figures as finally diagnosed).
 

(a) Puerperal Fever (Maternity Hospital. 0)	...	2
(b) „ Pyrexia (Maternity Hospital. 2)	...	11
- (II) Total number of cases removed to infectious diseases hospital:—
 

(a) Puerperal Fever (Maternity Hospital. 0)	...	2
(b) „ Pyrexia (Maternity Hospital. 2)	...	6
- (III) Total number of deaths:—
 

(a) Puerperal Fever (Maternity Hospital. 0)	...	1
(b) „ Pyrexia (Maternity Hospital. 0)	...	2

Two other deaths from sepsis occurred during the year, but in both cases the condition began in 1932.
- (IV) Number of cases following instrumental delivery:—
 

(a) Puerperal Fever,	...	...	...	...	0
(b) Puerperal Pyrexia,	...	...	...	..	3
- (V) Number of deaths occurring in cases included under (IV):—
 

(a) Puerperal Fever,	...	...	...	...	0
(b) Puerperal Pyrexia,	...	...	...	...	0
- (VI) Number of cases where the Local Authority provided assistance on the request of medical practitioners:—
 

(i) Consultant Service,	...	...	...	...	2
(ii) Bacteriological examination,	...	...	...	...	0
(iii) Skilled nursing at home,	...	...	...	...	0
(iv) Hospital Treatment,	...	...	...	...	6

Puerperal Fever,	...	...	...	...	2
Puerperal Pyrexia,	...	...	...	...	4

(VII) Observations on the working of the Regulations :—

There is nothing new to add to the comment made in 1931.

*Investigation.*—Two cases of puerperal fever were notified, one after delivery, and one after abortion. The confinement was conducted by a midwife, and the condition followed the second pregnancy. On investigation no apparent exciting cause was elicited. The other case was due to septicaemia following incomplete abortion.

The information elicited by the investigation of cases of puerperal pyrexia may be summarised as follows :—

(I). *Age of Patient.*—Two of the patients were aged 19 years, 5 from 20 to 25 years one from 26 to 30 years, and three were 31 years or over.

(II). *Number of confinement.*—In five cases the confinement was the first, in one the second, in one the third, and in 4 the fifth to the eighth.

(III). *Nature of attendance.*—In eight cases the confinement was conducted by a midwife, and in three the birth occurred in an institution.

(IV). *Nature of confinement.*—Forceps had been used in three cases, and eight were normal deliveries.

(V). Possible exciting causes :—

Conditions not attributable to parturition,	...	...	...	4
Septic conditions,	...	..	...	2
Gynaecological conditions.	...	...	...	1
Venereal conditions,	...	...	...	1
Nothing found on investigation,	..	...	...	3

## PULMONARY TUBERCULOSIS.

The number of cases on the register at the end of 1932 was 279. During the year 119 new cases were notified, one was transferred from the non-pulmonary register, 12 left the district, 28 died, 9 were struck off as non-tuberculous, and two as not requiring further supervision. Three cases were re-admitted to the register, two of these being patients who had left the district and returned, and one had been previously removed as non-tuberculous. There remained, therefore, on the roll as 31st December 301 patients (181 males and 120 females).

Particulars of age periods, etc., are as follows:—

		Under 5 years	5-10	10-15	15-25	25-35	35-45	45-65	65 up.	Total.
Sputum not present.	Males, -	—	2	7	11	2		3	—	25
	Females.	—	2	7	5	4	3	—	—	21
Sputum present but not examined.	Males, -	—	—	—	—	—	2	1	—	3
	Females.	—	—	1	—	2	2	2	—	7
Sputum examined and Tubercle Bacilli found.	Males, -	—	—	—	19	35	22	16	—	92
	Females,	—	—	1	23	17	8	6	—	55
Sputum examined and Tubercle Bacilli never found.	Males, -	—	—	—	12	14	15	18	2	61
	Females,	—	—	—	15	7	9	6	—	57
Total,		—	4	16	85	81	61	52	2	301

In addition 48 patients were under supervision as suspects and 44 as contacts of known cases.

NOTIFICATION.—One hundred and nineteen cases (63 males and 56 females) were notified as suffering from pulmonary tuberculosis as against 107 last year, and 115 the last five yearly average. The sputum was examined in 87 cases and in 58 tubercle bacilli were found to be present.

The age periods are as follows:—

AGE GROUPS.										Number of cases notified during year in which diagnosis of tuberculosis has been confirmed	
	Under 5	5-10	10-15	15-25	25-35	35-45	45-65	65 up.	Total.	Under 15	15 up.
Males,	2	1	3	20	17	15	4	1	63	6	51
Females,	3	4	2	22	16	6	3	—	56	7	46

Forty-one of these patients died before the end of the year and the average period of survival was 54 days. In addition seven left the district, in 6 the diagnosis was not confirmed, and 3 were still under observation as doubtful at the end of the year.

Of the total new cases examined, 84 were notified before being seen by the Tuberculosis Officer and 83 were referred for his opinion. Of these, 35 were accepted as suffering from tuberculosis, 37 were not accepted, and 11 were still under observation at the end of the year.

The following Table shows the home conditions of the notified cases in houses of different sizes, compared with the estimated percentage of such houses in the whole burgh:—

	Number of Cases.	Percentage of Total.	Percentage of Total Houses in the Burgh.
1 Apartment, - - - -	9	8	9
2 Apartments, - - - -	58	49	45
3 Apartments, - - - -	29	24	28
4 Apartments, - - - -	10	8	9
5 Apartments and over, - - -	7	6	9
Institutions, Lodginghouses, etc.	6	5	—

DISPENSARY.—New dispensary premises were provided during the year and there is now available a commodious waiting hall, dressing room, and doctor's room, which give ample facilities for the satisfactory carrying out of the work of the dispensary.

There is one thing still lacking, and that is X-ray equipment. If such were available, along with the necessary staff, the dispensary would be practically self sufficient. It would be more satisfactory if the staff of the dispensary were to do their own X-ray work, and undoubtedly economy could be effected in the long run. Premises are available which could probably be rendered suitable for the purpose, and it is hoped that this development may take place at an early date.

There was no radical change in the method of running the dispensary during the year. The number of persons who



attended was 265 and 222 X-ray examinations of the chest were carried out, the arrangements for this service remaining satisfactory.

**DOMICILIARY TREATMENT.**—One hundred and thirty-three persons received extra nourishment during the year, mostly in the form of milk, eggs and in some cases butter. Details are given later.

**INSTITUTIONAL TREATMENT.**—The following table gives the number of patients treated in the various institutions available to the burgh, and their condition on discharge:—

	Norau- side. Sanatorium	Bridge-of-Weir Sanatorium.	Smithston Pavilion.	Laufno Home Kirkintilloch.	St. Andrew's Home, Millport	Papworth Colony.	County Hospital
Number at 1st January, 1933, ..	16	20	15	1	6	1	14
Admitted during the year, ...	23	29	40	9	3		9
Treated during the year, ...	39	49	55	10	9	1	23
Total number discharged, ...	17	22	31	..	5		14
"  "  much improved, ..	8	7	2				2
"  "  improved, ..	5	14	12		2		8
"  "  stationary, ...	3		14		3		3
"  "  worse, ..	1	1	3				1
Left against advice, ..		1	14		1		2
Died, ..	5		15	3			7
Transferred to hospital, ..							
"  "  Smithston Pavilion, ..	2	1	..				
"  "  Millport, ..				..			1
"  "  Bridge of Weir ...			..	1			
Remaining at 31st Dec., 1933, ..	15	26	9	6	4	1	1

**HOME SUPERVISION.**—The nurses of the Greenock and District Nursing Association continue to pay supervisory visits to the patients on the tuberculosis roll. The number not attending the dispensary who were under supervision at the beginning of the year was 19 and the average number over the period was also 19.

## NON-PULMONARY TUBERCULOSIS.

The number of patients on the register at the end of 1932 was 222. During the year 48 new cases were notified, two left the district, 13 died, 5 were removed from the roll as non-tuberculous and 8 as not requiring further supervision. One case was re-admitted to the register, leaving 243 (124 males and 119 females) on the roll at 31st December.

The age periods and situation of lesions are shown in the following Table:—

LESION.		Under 5 years	5—10 years	10—15 years.	15—25 years	25—35 years	35—45 years	45—65 years	65 upwards	Total
Abdominal, ...	Males	2	4	4	9	1	..	..	..	20
	Females	1	3	4	4	3	..	..	..	15
Spine, ...	Males	1	3	1	3	1	..	..	..	9
	Females	..	2	1	7	1	..	1	..	12
Bones and Joints, exclusive of spine.	Males	5	16	16	14	4	1	2	..	58
	Females	6	8	11	10	1	3	2	..	41
Superficial Glands, ...	Males	3	1	9	9	2	..	..	..	24
	Females	..	6	9	12	6	2	3	..	38
Lupus, ...	Males	..	..	1	2	2	1	..	..	6
	Females	..	1	1	3	1	1	1	..	8
Other Parts or Organs,	Males	2	..	1	3	..	1	..	..	7
	Females	1	..	..	1	..	1	2	..	5
Total ...		21	44	58	77	22	10	11	..	243

NOTIFICATION.—The number of new cases notified was 48 as against 66 last year and 62 the average for the last five years. Ten of these died before the end of the year, the average period of survival being 15 days. In two the diagnosis was not confirmed, and 9 were still under observation at the end of the year.

Thirty-one cases were notified before being seen by the Tuberculosis Officer, 28 were referred for his opinion, and of these 17 were accepted as suffering from tuberculosis, 8 were not accepted, while 3 were still under observation at the end of the year.

The following table shows those cases classified according to age groups and situation of lesion:—

LESION.			Under 5 years	5—10 years	10—15 years	15—25 years	25—35 years	35—45 years	45—65 years	65 upwards	Total
Abdomen ... ..	Males		4	2	...	2	1	...	...	...	9
	Females		...	2	...	2	...	1	...	...	5
Spine, ... ..	Males		1	1	...	...	...	...	...	...	3
	Females		...	...	...	...	...	...	...	...	...
Bones and Joints ...	Males		...	2	1	3	...	1	1	...	7
	Females		2	...	1	2	...	1	...	1	7
Glands ... ..	Males		1	...	1	2	...	...	...	...	4
	Females		...	3	3	2	1	...	...	...	9
Lupus ... ..	Males		...	...	...	...	...	...	...	...	...
	Females		...	...	...	...	...	...	...	...	...
Other Parts or Organs,	Males		1	...	...	1	...	...	...	...	2
	Females		...	...	...	2	...	...	...	...	2
Total, ... ..			9	10	6	16	2	3	1	1	48

The home conditions of the various notified cases were found to be as follows:—

	Number of Cases.	Percentage of Total.	Percentage of Total Houses in the Burgh.
1 Apartment, . . . .	1	2	9
2 Apartments, . . . .	27	56	45
3 Apartments, . . . .	14	30	28
4 Apartments, . . . .	4	8	9
5 Apartments and over, .	...	...	...
Institutions, Lodginghouses, etc.	2	4	...

#### *Tuberculous Meningitis:—*

Number of cases discovered, . . . .	3
Number of cases notified, . . . .	2
Number of deaths, . . . .	3
Cases treated in hospital, . . . .	2

One of the cases was under five years of age, the illness lasting one month. One case was aged 14 and was fourteen days ill. One was aged 17 and was only five days ill. No definite source of infection was discovered in any of the cases.



DISPENSARY.—The number of patients who attended the dispensary during the year was 190. Twenty-eight X-ray examinations were carried out.

*Ultra-Violet Light Therapy.*—The mercury vapour lamp was in use throughout the whole year for the treatment of tuberculous conditions and actually burned 270 hours. The results were, on the whole, satisfactory.

The following conditions were treated :—

General Debility, - - - -	8
Tuberculosis of Superficial Glands, - -	16
Tuberculosis of Skin, - - - -	10
Tuberculosis of Abdomen, - - - -	4
Tuberculosis of Bones and Joints, - -	9

DOMICILIARY TREATMENT.—Fifty-five cases received extra nourishment during the year. Details are given later.

HOME SUPERVISION.—The number of patients not attending the dispensary who were under home supervision by the visiting nurses at the beginning of the year was 12, and at 31st December 13, the average number during the year being 13.

INSTITUTIONAL TREATMENT:—The following table gives the numbers treated in the various institutions used, and their condition on discharge :—

	St. Andrew's Home, Millport.	Smithston Pavilion.	Biggart Home, Prestwick.	County Hospital.
Number at 1st January, 1933,	29	1	1	1
Admitted during the year,	18	7	1	...
Treated during the year	47	8	2	1
Discharged during the year,	22	5	2	1
Total number much improved.	10	...	2	...
"    "    improved, .	9	1	...	1
"    "    stationary,	3	2	...	...
"    "    worse,	...	...	...	...
Left against advice,	...	3	...	...
Died,	1	...	...	...
Remaining at 31st Dec., 1933,	24	3	...	...

## ALL TUBERCULOSIS.

The number on the tuberculosis roll at the end of the year was 554. The number of persons who attended the dispensary was 582, and the total attendances amounted to 4,274 as against 3,253 last year, and 3,117 the average for the last five years.

The detail was as follows:—

Type of Case.	Number of Patients.	Primary Visits.	Re-visits.
Pulmonary, .	265	55	1,747
Non-Pulmonary, .	190	27	1,939
Suspect, . . .	76	76	297
Contact, . . .	51	31	101
Total, . . .	582	189	4,085

The number of patients visited in their homes was 678 and the total supervisory visits paid amounted to 5,161.

The number of persons who received extra nourishment was 188 as against 152 last year and 105 the last five yearly average. The total cost of this service was £694.

The number of prescriptions paid for by the local authority under the scheme was 358, and the total cost £27 1s. 6d. The number of persons who received these prescriptions was 98, and the average cost per person was 5/6.

In addition to the above 102 patients received assistance from the Renfrewshire King Edward Memorial Fund as follows:—

Clothing, . . . . .	67
Rent, . . . . .	21
Dental treatment, . . . . .	20
Bedding, . . . . .	12
Bed, . . . . .	10
Special Boots, . . . . .	1
Crutches, . . . . .	1

## MATERNITY SERVICE AND CHILD WELFARE SCHEME.

During the year no radical change was made in the routine arrangements under the scheme. The visitation of infants remained on the same basis as detailed in the 1929 report.

In December the existing scheme for the provision of maternity services in necessitous cases was discontinued, and a new scheme arranged. The only new feature is the payment to be made on behalf of necessitous mothers to midwives for attendance at abortions. The scheme is given in detail later in this section.

Arrangements were also made to provide butter and eggs in addition to milk in the case of necessitous expectant and nursing mothers.

The attendance of 980 expectant mothers at the ante-natal clinics again constitutes a record.

The Shaw Place Clinic has now outlived its usefulness and is quite inadequate to cope with the numbers in attendance. A commodious and up to date clinic is being provided in the new office building in Terrace Road and should be in use during 1934.

The Department has again to thank Mr Riddell and Mr Wilson for their unfailing help in many ways.

### BIRTHS :—

Numbered registered (corrected),	{ Legitimate, 1,557 }	{ (1,832) 1,638
	{ Illegitimate, 81 }	

Number notified,	1,674
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Number of births classified according to nature of attendance :—

Medical practitioner.	...	...	...	244
Midwife.	...	...	...	1,250
Institution.	...	...	...	180

### STILLBIRTHS :—

Number of stillbirths (births of dead children).	...	(75)	73
--	-----	------	----

Under this heading are included all the births of dead children after the expiry of the seventh month of pregnancy. Seventy-three cases were notified, of which 26 occurred in the Maternity Hospital where abnormal cases are treated.

Note—The figures in italics are the average figures for the last 5 years.

Each of these stillbirths was investigated as it occurred. From the investigation the following facts were elicited, :—

(1) Age of Mother.—

Under 20,	6.	30-34,	11.
20-24,	13.	35-39,	15.
25-29,	21.	40 and over,	6.
	Not known,	1.	

(2) Number of Pregnancy :—

First,	16.	Fifth,	7.	Tenth,	1.
Second,	8.	Sixth,	5.	Eleventh,	2.
Third,	11.	Eighth,	6.	Over Twelfth,	4.
Fourth,	9.	Ninth,	3.	Not known,	1.

(3) Duration of Pregnancy :—

In eighteen cases pregnancy had lasted for seven months. in fourteen cases eight months, and in forty-one cases stillbirth occurred at term.

(4) Nature of Attendance :—

Midwife,	21.	Doctor,	4.
Midwife and Doctor,	21.	Midwife. Doctor and Institution,	27.

(5) Presentation :—

Vertex,	50.	Shoulder and Cord,	1.	Face,	3.
Breech,	15.	Foot,	2.	Vertex and Hand,	1.
		Not known,	1.		

(6) Nature of Interference :

No interference,	60.	Surgical Induction,	2.
Forceps,	5.	Version,	4.
Caesarean Section,	1.	Not known,	1.

(7) Condition of child :—

Normal,	35.	Abnormality,	7.
Macerated,	30.	Not known,	1.

(8) Condition of placenta :—

In fifty-two cases the placenta was healthy. in nineteen unhealthy. in one adherent. and in one the information is not available.

(9) Ante natal health of mother :—

In twenty-nine cases the health of the mother was good. in twenty-two cases fair, in eighteen cases poor, in one it is not known, and there were three cases of eclampsia.

## (10) Ante natal supervision :—

In sixteen cases the mother attended the ante-natal clinic, in eighteen cases she consulted a doctor or midwife during pregnancy, in fourteen cases ante-natal supervision was unsatisfactory, and in twenty-four cases there was no supervision, while in the other no information is available.

## (11) Causal factors :—

(i) Ante-natal deaths,	...	...	...	36
Renal conditions,	...	...	...	13
Ante-partum haemorrhage,	...	...	...	11
Illness of mother,	...	...	...	6
No obvious cause,	...	...	...	6

(ii) Intra-natal deaths	obstetrical difficulty,	...	...	26
Breech Presentation,	...	...	...	12
Twin Birth.	...	...	...	5
Face Presentation,	...	...	...	3
Contracted Pelvis.	...	...	...	2
Foot presentation,	...	...	...	2
Head and hand presentation.	...	...	...	1
Shoulder and hand presentation,	...	...	...	1

(iii) Abnormality of child,	...	...	...	7
(iv) Eclampsia,	...	...	...	3
(v) Not known.	...	...	...	1

## ABORTIONS :—

Eleven abortions were investigated and the causes elicited were as follows :—

Maternal injury or strain.	1.	Haemorrhage,	4.
Illness of mother.	2.	Cause unknown,	4.

## INFANTILE MORTALITY :—

Number of deaths of children under 1 year.	...	177
Rate per 1,000 births,	...	108.05

Number of deaths and rates per 1,000 births classified according to age groups and causes of death :—

CAUSES OF DEATH.	AGE GROUPS.					Total Deaths.	Rate per 1,000 Births.
	Under 1 week	1—4 weeks.	5 weeks—3 months.	3 months—6 months.	6 months—12 months.		
Chickenpox, ... ..	...	...	...	...	...	...	...
Measles, ... ..	...	...	...	...	...	...	...
Scarlet Fever, ... ..	...	...	...	...	...	...	...
Whooping Cough, ... ..	...	1	3	6	9	19	11.60
Diphtheria and Croup, ... ..	...	...	...	...	...	...	...
Erysipelas, ... ..	...	...	1	...	...	1	0.61
Tuberculous Diseases, ... ..	...	...	1	...	...	1	0.61
Meningitis (non-tuberculous), ... ..	...	...	...	2	1	3	1.83
Hydrocephalus, ... ..	...	...	...	...	...	...	...
Convulsions, ... ..	4	3	3	1	...	11	6.72
Pneumonia (all forms), ... ..	...	...	6	5	11	22	13.43
Bronchitis, ... ..	...	3	4	...	3	10	6.11
Diarrhoea and Enteritis, ... ..	1	1	3	5	11	21	12.82
Other Digestive Diseases, ... ..	...	...	...	...	...	...	...
Congenital Malformations, ... ..	1	2	2	...	...	5	3.05
Congenital Heart Disease, ... ..	1	...	...	...	...	1	0.61
Premature Birth, ... ..	27	3	1	...	...	31	18.93
Atrophy, Debility, & Marasmus ... ..	10	4	12	8	5	39	23.80
Atelectasis, ... ..	...	...	...	...	...	...	...
Injury at Birth, ... ..	...	...	...	...	...	...	...
Suffocation, Overlaying, ... ..	...	...	...	...	...	...	...
Syphilis, ... ..	...	...	...	...	...	...	...
All other Causes, ... ..	1	4	3	3	2	13	7.93
Total Deaths, ... ..	45	21	39	30	42	177	
Rate per 1000 Births, ... ..	27.46	12.82	23.83	18.31	25.63		105.05

This table is compiled from the corrected number of deaths (Registrar General).

#### MATERNAL MORTALITY:—

Number of deaths resulting from pregnancy or confinement, ... .. 13

Number of deaths resulting from puerperal sepsis (details will be found under deaths and death-rate). ... 5

#### HOME VISITATION:—

##### (1) Infants:—

Number of children visited ... (2,691) 2,379

Number of first visits. 1,540 ... (1,722) { 18,248

Number of revisits. 16,708 ... (15,292) {

##### Number of infants at age of 6 months:—

(i) Breast fed. ... (745) 671

(ii) Partially breast fed. ... (148) 78

(iii) Artificially fed. ... (435) 419

##### Number of infants born:—

(i) Prematurely. ... (80) 28

(ii) At full time. ... (1,825) 1,646

Note—The figures in italics are the average figures for the last 5 years.

## (2) Children (1-5 years).—

Number of children visited.	...	...	(6,856)	6,663
Number of first visits, 28 }	...	...	(46)	22,179
Number of re-visits, 22,151 }	...	...	(23,711)	

## (3) Expectant mothers. —

Number visited.	...	...	...	—
Number of first visits, 84 }	...	...	...	97
Number of re-visits, 13 }	...	...	...	

## (4) Nursing Mothers.—

Number of first visits, 37 }	...	...	...	49
Number of re-visits, 12 }	...	...	...	

5. Visits of special enquiry,	...	...	...	27
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## ANTE-NATAL CONSULTATIONS :—

Three sessions of two hours are held weekly in Shaw Place Clinic and one similar session is held in Craigieknowes Clinic.

Total number of expectant mothers attending,	...	(543)	980
Total number of attendances, { First, 826, }	...	(523)	2,983
{ Subsequent, 2,175, }	...	(1,245)	

## Classified summary of conditions found :—

## Conditions directly connected with pregnancy :—

Albuminuria,	...	...	...	6
Contracted pelvis,	...	...	...	22
Doubtful pregnancy,	...	...	...	13
Threatened abortion,	...	...	...	8
Transverse presentation,	...	...	...	3
Twin presentation,	...	...	...	3
Breech presentation,	...	...	...	27
Anaemia and debility,	...	...	...	119
Cardiac conditions,	...	...	...	11
Dental conditions,	...	...	...	46
Digestive diseases,	...	...	...	20
Ear, nose and throat conditions,	...	...	...	5
Eye conditions,	...	...	...	4
Gynaecological conditions,	...	...	...	29
Gastric conditions,	...	...	...	3
Kidney conditions,	...	...	...	87
Rheumatism,	...	...	...	1
Respiratory conditions,	...	...	...	20
Skin Conditions,	...	...	...	2
Septic conditions,	...	...	...	3
Venereal disease,	...	...	...	1
Varicose veins,	...	...	...	1
No abnormality present—advice given,	...	...	...	692

Note—The figures in italics are the average figures for the last 5 years.



## POST-NATAL AND OTHER CONSULTATIONS:—

Two sessions of two hours weekly are held in Shaw Place Clinic, and two similar sessions are held in Craigieknowes Clinic.

Number of attendances, {	First, 481 {	...	...	1,266
	Subsequent, 785 }			

## Classified summary of conditions found:—

Anaemia and debility,	...	...	...	147
Cardiac conditions,	...	...	...	3
Digestive conditions,	...	...	...	23
Dental conditions,	...	...	...	87
Ear nose and throat conditions,	...	...	...	4
Eye conditions,	...	...	...	6
Gynaecological conditions,	...	...	...	21
Genito-urinary conditions,	...	...	...	6
Nervous conditions,	...	...	...	3
Kidney conditions,	...	...	...	5
Respiratory conditions,	...	...	...	18
Skin conditions,	...	...	...	12
Rheumatism,	...	...	...	1
Septic conditions,	...	...	...	23
Venereal disease,	...	...	...	1
No abnormality—advice given,	...	...	...	132

## CHILD WELFARE CONSULTATIONS:—

Two sessions of two hours are held weekly in Shaw Place Clinic, and two similar sessions are held in Craigieknowes Clinic.

## Total number of children attending:—

Under one year of age, {	at 30th June, 1933, {	(981)	1,036
Over one year of age, }		(864)	980

## Number of first attendances:

Under one year of age,	...	...	...	(838)	851
Over one year of age,	...	...	...	(177)	153

## Total number of attendances:—

Under one year of age,	...	...	...	(5,919)	7,236
Over one year of age,	...	...	...	(3,868)	4,029

## Illnesses recorded:—

Accidents,	...	...	...	...	5
Anaemia and debility,	...	...	...	...	367
Cardiac conditions,	...	...	...	...	1
Dental conditions,	...	...	...	...	60
Digestive conditions,	...	...	...	...	176
Ear, nose and throat conditions,	...	...	...	...	75

Note—The figures in italics are the average figures for the last 5 years.



Eye conditions, ...	...	...	...	35
Genito-urinary conditions, ...	...	...	...	51
Glandular conditions, ...	...	...	...	39
Infectious conditions, ...	...	...	...	50
Kidney conditions, ...	...	...	...	1
Malformation, ..	...	...	...	2
Mental deficiency, ...	...	...	...	2
Nervous conditions, ...	...	...	...	2
Respiratory conditions, ...	...	...	...	178
Rickets, ...	...	...	...	64
Septic conditions, ...	...	...	...	55
Skin conditions, ...	...	...	...	208
Tuberculous conditions, ...	...	...	...	1
Venereal diseases, ...	...	...	...	7
No abnormality—vaccination performed, ...	...	...	...	174
No abnormality—advice given, ...	...	...	...	695

#### SPECIAL TREATMENT CENTRES—

##### *Teeth—Corporation Dental Clinic.*

##### Number of attendances :—

Mothers expectant, 63 }				
Mothers nursing, 193 }	...	...	...	256
Children, ...	...	...	...	79

##### Work carried out :—

##### Mothers :—

Carious teeth extracted (local anaesthetic), ..	217
Gums treated, ... ..	34
Advice given, ... ..	10

##### Children :

Carious teeth extracted, (no anaesthetic), ...	71
Gums treated, ... ..	5
Advice given, ... ..	4

##### Number of dentures supplied :—

Upper and lower dentures, ... ..	1
Upper dentures, ..	6

##### *Eyes—Greenock Eye Infirmary.*

Number of attendances	{ Children, 1,013 }	...	1,031
	{ Nursing mothers, 18 }		

##### Summary of conditions present :—

##### Children :—

Conjunctival conditions, ..	...	...	48
Corneal conditions, ... ..	...	...	34
Congenital defect, ... ..	...	...	2

Eyelid conditions.	..	...	...	...	18
Injury.	...	...	...	...	8
Lachrymal conditions,	...	...	...	...	1
Ophthalmia neonatorum.	...	...	...	...	12
Ophthalmia, other.	...	...	...	...	8
Refraction errors.	...	...	...	...	28

## Mothers :—

Corneal conditions.	...	...	...	...	1
Lachrymal conditions,	...	...	...	...	1
Refraction errors.	...	...	...	...	1

*Ear, Nose and Throat Greenock Dispensary.*

Number of Attendances.	{ Children.	...	1,247	}	1,247
	{ Nursing mothers.	...	—		

## Summary of conditions found :—

## Children :—

Diseases of ear,	...	..	...	...	83
„ „ nose,	...	...	...	...	25
„ „ throat,	...	...	...	...	10
„ „ lymphatic glands,	...	...	...	...	6
Enlarged tonsils and adenoids.	...	...	...	...	7
Foreign body,	...	...	...	...	2
Injury to nose.	...	...	...	...	1

## Operations performed :—

Tonsillectomy and adenectomy.	...	..	...	59
Mastoid, complete,	...	...	...	6
Mastoid, incomplete.	...	...	...	2

*Other Ailments—Greenock Royal Infirmary.*

## Children :—

Number of attendances,	..	...	...	1,548
Number who received in-patient treatment.	...	...	...	154

## Summary of conditions found :—

Bone and joint conditions.	...	...	...	1
Circulatory diseases.	...	...	...	2
Digestive diseases,	...	...	...	36
Ear, nose, and throat conditions.	...	...	...	14
Glandular conditions.	...	...	...	13
Genito-urinary conditions.	...	...	...	108
Infectious conditions.	...	...	...	3
Injuries and fractures.	...	...	...	250
Nervous conditions.	...	...	...	6
Rickets,	...	...	...	6
Respiratory conditions,	...	...	...	41
Septic conditions.	...	...	...	66
Skin conditions,	...	...	...	16
Tuberculous conditions,	...	...	...	3
Under observation,	...	...	...	14

## Mothers :—

Number of attendances,	...	...	...	154
------------------------	-----	-----	-----	-----

## Summary of conditions found :—

Bone and joint conditions,	...	...	...	1
Digestive conditions,	...	...	...	2
Gynaecological conditions,	...	...	...	1
Septic conditions,	...	...	...	2
Threatened abortion,	...	...	...	2

*Whooping Cough—Special Corporation Clinic.*

During the year a special clinic for the vaccine treatment of cases of whooping cough was held once weekly at the Shaw Place Clinic. The treatment consisted of one injection weekly on three consecutive weeks, and the results were found to be very good in almost all cases. Two hundred and thirty-three cases received treatment as follows :—

1 injection,	...	...	...	...	233
2 injections,	...	...	...	...	207
3 injections,	...	...	...	...	161

*Ultra-Violet Light Clinic :—*

Number of cases under one year of age,	18 }	...	...	155
Number of cases over one year of age,	137 }	...	...	
Number of attendances,	...	...	...	2,315

## Conditions treated :—

Alopecia,	...	...	...	...	1
Abscess,	...	...	...	...	1
Bronchial Catarrh,	...	...	...	...	2
Debility and underweight,	...	...	...	...	65
Glandular conditions,	...	...	...	...	2
Rickets, early,	...	...	...	...	2
Rickets, pronounced,	...	...	...	...	82

As in previous years, the most marked improvements from treatment by ultra-violet light, were noted in cases of rickets and debility and underweight, and on the whole the results were most gratifying.

The lamp was in actual use for 233 hours.

## FOOD AND MILK :—

## Number of applications received :—

Food,	...	...	...	...	...	Nil
-------	-----	-----	-----	-----	-----	-----

## Milk :

Mothers expectant,	168 }	...	...	...	216
Mothers nursing,	48 }	...	...	...	
Children,	...	...	...	...	409

All of these cases were certified on medical grounds as requiring milk, and all were considered necessitous. In this way 8,516 gallons of milk were supplied during the year at an approximate cost of £781.

## Dried milk Substitutes :—

Number of children, ...	...	...	...	222
Number of Mothers, ...	...	...	...	12

One thousand three hundred and forty-five pounds of food were provided at cost price, and 1,224 were given free at an approximate cost of £102.

The following new scheme came into force on 19th December :—

## SCHEME FOR THE PROVISION OF FOOD AND MILK IN NECESSITOUS CASES.

### 1. CHILDREN.

(a) The provision of fresh milk for children up to the age of 5 years will be 1 pint per day, or  $1\frac{1}{2}$  pints in exceptional cases, and of dried milk substitutes where necessary according to the quantity required, up to a maximum of 1 lb. per week.

(b) The following scale of necessity is adopted—The able-bodied scale of income fixed by the Public Assistance Committee.

(c) Where the income is above the scale no grant of fresh milk will be made, but dried milk substitutes may be provided at cost price.

(d) Where the income is equal to or below the scale fresh milk free and dried milk substitutes at half price will be given only if considered necessary by the Medical Officer after medical examination, on account of illness or for the maintenance of health.

(e) Provision of milk will be made for such period not exceeding one month, as may be considered necessary by the Medical Officer, but may be renewed on further certification after medical examination.

### 2. EXPECTANT AND NURSING MOTHERS.

(a) Food and Milk may be given in the case of expectant and nursing mothers where necessary according to the quantity required up to a maximum of 1 pint of milk and 1 egg per day and  $\frac{1}{2}$  lb. of butter per week.

(b) The following scale of necessity is adopted—The able-bodied scale of income fixed by the Public Assistance Committee.

(c) Where the income is above the scale no grant will be made.

(d) Where the income is equal to or below the scale, milk or eggs or butter, or any or all of them will be given only if considered necessary by the Medical Officer after medical examination on account of illness, or for the maintenance of health.

(e) Milk may be given during the last three months of pregnancy, and up to 10 months after confinement provided the mother continues breast feeding.

Eggs and butter may be given during the two months before confinement and the month thereafter.

(f) Provision of milk, etc., will be made for such period, not exceeding one month, as may be considered necessary by the Medical Officer, but may be renewed on further certification after medical examination.

#### MEASLES :—

Number of cases notified, (notification voluntary by householder),	...	...	...	...	74
Number of deaths	{	from measles,	...	...	0
		from sequelae, included above,	...	...	0
Number of cases removed to hospital,	...	...	...	...	3
Number of special domiciliary visits,	...	...	...	...	0
Number of special staff engaged,	...	...	...	...	0

#### WHOOPIING COUGH :—

Number of cases notified (notification voluntary by householder),	...	...	...	...	423
Number of deaths,	{	from whooping cough,	...	...	43
		from sequelae, included above,	...	...	22
Number of cases removed to hospital,	...	...	...	...	6
Number of special domiciliary visits,	...	...	...	...	0
Number of special staff engaged,	...	...	...	...	0

#### OPHTHALMIA NEONATORUM :—

Number of cases notified	{	by medical practitioners, 3	}	34
		by midwives, 30		
		by institution, 1		
Number of cases proved to be gonococcal,	...	...	...	1
Number of cases treated in the eye infirmary (out-patients),	...	...	...	11
Number of cases removed to hospital,	...	...	...	0
Number of cases in which there was appreciable loss of vision,	...	...	...	0

As formerly, bus fares were paid in necessitous cases where children were attending the Eye Infirmary from a distance.

#### PROVISION OF MIDWIFERY SERVICES IN NECESSITOUS CASES :—

Cases under investigation at 1st January, 1933,	...	...	...	76
Number of applications received,	...	...	...	606
Number of applications granted,	...	...	...	199
Number of applications not granted,	...	...	...	345
Maternity benefit,	...	...	...	292
Income over scale,	...	...	...	27
Late application,	...	...	...	14
Other reasons,	...	...	...	12
Number of applications under consideration at 31st December, 1933,	...	...	...	138
Total Expenditure,	...	...	...	£233 15 0

The following new scheme to cover this service came into operation on 19th December :—

## SCHEME FOR PROVISION OF MIDWIFERY SERVICES IN NECESSITOUS CASES.

1. Expectant mothers unable to pay for the services of a midwife shall complete a form of application for the payment of the midwifery fee at their confinement. Application forms, which can be obtained at the Corporation ante-natal clinics, shall be returned to the Public Health Office, 4 Terrace Road, and show the name and address of the midwife engaged. These applications shall be lodged before the end of the 7th month of pregnancy and contain an undertaking to attend the ante-natal clinic for supervision.

2. Investigation shall be made by the Public Health Department regarding the income of the household, and whether maternity benefit is due.

3. The following scale of necessity is adopted—The able-bodied scale of income fixed by the Public Assistance Committee.

4. Applications shall not be granted where maternity benefit is payable.

5. Where maternity benefit is not payable applications shall be dealt with by the Medical Officer of Health, and granted if the income is equal to or less than the scale of necessity specified, and if the conditions stated above are complied with. Applications shall not be granted where the family income is over the scale, or the conditions are not complied with. The time for assessment of income shall be the time at which the confinement occurs.

All applications not granted by the Medical Officer of Health shall be referred to the Maternity and Child Welfare Sub-Committee, who shall have power to deal therewith.

6. Where the application is granted, the chosen midwife who conducts the confinement shall be paid by the Corporation, on behalf of the mother, a fixed fee of 25/-.

7. Such midwives as wish to undertake these cases shall be under obligation to send their patients to the ante-natal clinic for supervision during at least the last two months of pregnancy.

8. The Corporation also undertake to pay, on behalf of the mother, a fixed fee of 7/6 to any midwife who attends a case of abortion or miscarriage before the end of the 7th month of pregnancy, provided a satisfactory record of the case is produced to the Medical Officer of Health.



## GREENOCK CORPORATION MATERNITY HOSPITAL.

	Mothers.	Children.
Number in hospital at 1st January, 1933,	6	2
Number of admission during 1933,	180	1
Number of live births, ... ..	0	127
Number of stillbirths, ... ..	0	27
Number of deaths, ... ..	2	6
Number of discharges, ... ..	181	147
Number in hospital at 31st December, 1933,	5	4

## Analysis of admissions :—

Ante-natal cases, ... ..	43
Abnormal and complicated confinements, ... ..	48
Other cases of confinement, ... ..	84
Abortions, ... ..	1
Post-natal cases, ... ..	4
Total admissions, ... ..	180

(1) Ante-natal cases :— 43

Condition Found.	Result of Treatment.
12 Albuminuria, - - -	5 discharged undelivered ; 2 delivered and recovered ; 2 delivered, still-birth, discharged well ; 1 ante-partum haemorrhage, delivered, retained placenta, recovered ; 1 surgical induction, stillbirth, discharged well ; 1 forceps delivery, discharged well.
13 False Labour, - - -	treated and discharged undelivered.
1 Eclampsia, - - -	treated and discharged undelivered.
4 Ante-natal observation, -	1 primary uterine inertia, forceps delivery, discharged well ; 1 delivered, discharged well ; 1 forceps delivery, discharged well ; 1 delayed, 2nd stage, forceps delivery, adherent placenta, discharged well.
1 Hyperemesis, - - -	discharged undelivered.
7 Ante partum Haemorrhage.	5 discharged undelivered ; 1 delivered discharged well ; 1 delivered twins, prolapsed cord, breech, transferred to Gateside Hospital.
3 Cardiac Disease, - - -	all discharged well.
1 Hydramnios, - - -	Surgical induction, face presentation, stillbirth, discharged well.
1 Anaemia, - - -	delivered, stillbirth, died.
2 Ante-natal cases carried forward from 1932, - - -	1 albuminuria, retained placenta, delivered, discharged well ; 1 eclampsia, twins, still births (1 transverse), discharged well.

## (2) Abnormal and Complicated Confinements :—

Condition Found.	Result of Treatment
10 Contracted Pelvis, - -	4 forceps delivery, discharged well ; 4 caesarean section, discharged well ; 1 caesarean section, stillbirth, discharged well ; 1 normal delivery, discharged well.
7 Delay in 2nd stage. - -	6 forceps delivery, discharged well ; 1 face presentation, version, still- birth, discharged well.
2 Eclampsia, - - -	1 version, stillbirth, discharged well ; 1 delivered, stillbirth, discharged well.
8 Placenta Praevia, - -	2 delivered, discharged well ; 2 deli- vered, stillbirths, discharged well ; 1 version, stillbirth, discharged well ; 1 delivered twins, discharged well ; 1 delivered, stillbirth, adherent placenta, discharged well ; 1 delivered, retained placenta, discharged well.
3 Breech Presentation, - -	all delivered, discharged well.
3 Adherent Placenta, - -	all delivered, discharged well.
1 Face Presentation, - -	delivered, stillbirth, discharged well.
2 Hand Presentation. - -	1 version, discharged well ; 1 version, stillbirth, discharged well.
4 Albuminuria, - - -	2 delivered, discharged well ; 2 for- ceps delivery, discharged well.
3 Twin Pregnancy, - - -	1 delivered, discharged well ; 1 foot presentation, delivered, discharged well ; 1 foot presentation, stillbirth, discharged well.
1 Foot Presentation and Prolapsed Cord,	delivered, stillbirth, discharged well.
5 Ante-partum Haemorrhage, -	4 delivered, stillbirth, discharged well ; 1 transverse version, stillbirth, discharged well.
(3) Other cases of confinement, ... ..	84
(4) Abortions : - ... ..	1
1 Complete abortion, -	Treated and discharged well.
(5) Post-natal cases :— ... ..	4
1 eclampsia treated, died.	
2 adherent placenta, discharged well.	
1 Housing conditions bad, treated, discharged well.	



## (6) Other information :—

(a)	Number of normal deliveries.	...	...	...	82
(b)	Number of cases delivered without medical attendance at delivery.	...	...	...	114
(c)	Number of instrumental deliveries, exclusive of those appearing under (2)	...	...	...	—
(d)	Number of cases of puerperal sepsis removed from institution,	...	...	...	2
(e)	Number of cases of puerperal morbidity,	...	...	...	1
(f)	Number of cases under (e) in which delivery was instrumental	...	...	...	0
(g)	Number of deaths.	...	...	...	2
	Post Eclampsia.	...	...	...	1
	Anaemia, collapse following delivery,	...	...	...	1
(h)	Number of infants born	{	alive,	...	127
		{	stillborn,	...	27
	Number of sets of Twins,	...	...	...	6
	Both alive.	...	...	...	4
	1 stillborn, 1 alive,	...	...	...	1
	Both stillborn.	...	...	...	1
(i)	Number of deaths of infants under 8 days old,	...	...	...	5
	Number of deaths of infants over 8 days old.	...	...	...	1
(j)	Streptococcus antitoxin was given before or immediately after delivery in 31 cases of abnormal or difficult confinement with the following result :—				
	Puerperium normal,	...	...	...	30
	Developed Puerperal Sepsis,	...	...	...	1

## HOSPITALS FOR SICK CHILDREN :—

## Children's Hospital, Shaw Place :—

Number in hospital at 1st January, 1933,	...	...	26
Number admitted during the year,	...	...	141
Number discharged.	...	...	105
Number died,	...	...	37
Number remaining in hospital. at 31st December 1933,	...	...	25
Average period of residence,	...	...	60.13 days

The following were the conditions present and the results of treatment in children during 1933:—

CONDITION.	Cases in hospital 1st January, 1933	Cases admitted	Improved.	Not Improved.	Died.	Removed to Gateside Hosp.	Removed to Royal Infirmary.	Removed to Smithston Inst.	Cases remaining in Hospital 31st Dec., 1933.
Anaemia and Debility,		31	17	4	1	3	1		5
Bronchitis, ..	4	9	4	1	5		1		2
Convulsions, ...		1	...	1	...	...	...		...
Gastro-enteritis, ...	3	23	9	2	9	...	...		6
Healthy baby, ...		2	1	1	...	...	...		...
Marasmus, ...	4	21	7	4	12	...	...		2
Mental Deficiency, ...		1	...	1	...	...	...		...
Meningitis, ...		1	...	...	1	...	...		...
Nephritis, ...		1	1	...	...	...	...		...
Pneumonia, ...	3	14	8	...	6	1	...		2
Pemphigus, ...		1	...	...	...	...	...		1
Rickets, ...	6	13	12	...	...	4	...		3
Retro-pharyn. Abscess,		1	1	...	...	...	...		...
Stomatitis, ...		2	2	...	...	...	...		...
Skin conditions, ..	2	6	4	1	...	...	...	1	2
Septic conditions, ...	2	8	6	1	1	...	...	...	2
Spinal Condition, ...		1	1	...	...	...	...	...	...
Shock following Burn,		1	1	...	...	...	...	...	...
Tuberculous conditions	2	4	3	...	2	1	...	...	...
TOTAL, ...	26	141	77	16	37	9	2	1	25

Twenty-six cases of infectious disease occurred during the year.

One case of diphtheria, 4 cases of scarlet fever, 3 cases of whooping cough, and one case of croup were removed to Gateside Hospital. In addition one nurse suffered from diphtheria, one a diphtheria carrier, and one nurse with scarlet fever were also removed to Gateside Hospital. Fourteen cases of whooping cough were nursed in the hospital.

### MIDWIVES (SCOTLAND) ACT, 1915.

#### BIRTHS :—

Total number of births (notified). - - - - -	1,674
Total number of deaths of new-born children. - - - - -	49
Number of births attended by midwives. - - - - -	1,250
Number of deaths of new-born children occurring in the practice of midwives. - - - - -	35
Number of cases not attended by doctor or midwife. - - - - -	—

## CASES OF OPHTHALMIA NEONATORUM :—

Total number of cases,	-	-	-	-	-	34
Number of cases occurring in the practice of midwives,	-	-	-	-	-	30
Number of cases not attended by doctor or midwife,	-	-	-	-	-	—

## CASES OF PUERPERAL SEPSIS :—

Total number of cases,	-	-	-	-	-	2
Total number of deaths,	-	-	-	-	-	1
Number of cases occurring in the practice of midwives,	-	-	-	-	-	1
Number of deaths occurring in the practice of midwives,	-	-	-	-	-	—
Number of cases not attended by doctor or midwife,	-	-	-	-	-	—

## CASES OF PUERPERAL PYREXIA :—

Total number of cases,	-	-	-	-	-	11
Total number of deaths,	-	-	-	-	-	2
Number of cases occurring in the practice of midwives,	-	-	-	-	-	8
Number of deaths occurring in the practice of midwives,	-	-	-	-	-	—
Number of cases not attended by doctor or midwife,	-	-	-	-	-	—

## CASES OF STILLBIRTH (DEAD BORN CHILDREN) :—

Total number of cases during 1933 (2 sets of twins),	-	-	-	-	-	75
Actual number of cases occurring in the practice of midwives during 1933 (1 set of twins),	-	-	-	-	-	43

Of the cases 27 occurred in the Maternity Hospital, where abnormal cases are treated. (This includes 1 set of twins).

## CASES OF EMERGENCY :—

There were 438 cases of emergency, namely :—

*Ante-natal.*

Ante-partum hæmorrhage, 34; Doubtful pregnancy, 1; Eclampsia, 2; Illness of mother, 37; Oedema, 8; Threatened and complete abortion, 16.

*Intra-natal.*

Abnormal presentation, 41; Adherent placenta, 5; Contracted pelvis, 26; Delayed labour, 67; Illness of mother, 2; Maternal distress, 14; Torn perineum, 71.

*Post-natal.*

Illness of mother, 12; Pyrexia, 17; Post-partum hæmorrhage, 10.

*Child.*

Abnormality, 7; Illness of Child, 23; Prematurity, 25; Stillborn, 20.

## NOTIFICATION :—

The following notifications required under the rules of the Central Midwives Board and the Public Health (Ophthalmia Neonatorum) Regulations (Scotland), 1918, were received :—

Notification of stillbirth,	-	-	-	-	30
Notification of having advised artificial feeding,	-	-	-	-	10
Notification of death,	-	-	-	-	14

Notification of having laid out a dead body, - -	13
Notification of liability to be a source of infection. - -	3
Notification of ophthalmia neonatorum. - -	30
Notification of patient's failure to follow advice, - -	80

#### SUPERVISION:—

Forty-six midwives notified their intention to practice within the burgh, but only 31 were actually in practice. Of the latter, 27 resided in the burgh of Greenock, 2 in the burgh of Port-Glasgow, and 2 in the burgh of Gourrock.

One hundred and twelve supervisory visits were made by the Inspectors of Midwives during the year. The work of the midwives during the year has been satisfactory.

All the expectant mothers referred to as having failed to follow advice given by their midwife were visited by the Health Visitors, with the following results:—

Stated that own doctor was in attendance, - - -	10
Promised to call in own doctor, - - - - -	13
Confinement found to be over or due, - - - - -	19
Refused to attend ante-natal clinic, or to seek medical advice, - - - - -	35
Persuaded to attend ante-natal clinic, - - - - -	3

From these results it would appear that at the present time the value of this notification is not great, but it may be said to hold out some promise for the future.

#### VENEREAL DISEASES.

##### MALES.—

The arrangements at the male clinic remained unchanged.

The following Table gives comparative figures for the years during which the clinic has been in operation:—

Year ending 31st December.	New Cases.	Attendances at Clinics.	Attendances at Centre.	Total Attendances.
1923	182	1,592	5,970	7,562
1924	160	2,054	6,436	8,490
1925	178	2,363	7,707	10,070
1926	176	2,923	10,118	13,041
1927	189	2,845	11,245	14,090
1928	194	3,083	11,468	14,551
1929	182	3,373	7,188	10,561
1930	179	3,043	7,351	10,394
1931	147	2,723	6,039	8,762
1932	130	3,035	6,590	9,625
1933	100	2,883	5,272	8,155

These figures give some promise of a progressive reduction of venereal disease among the male population.

During the year 208 specimens of blood were examined by the Wassermann test in the Public Health Laboratory, Glasgow, while 28 scrapings for spirochetes and 731 smears for gonococci were dealt with in the centre.

The different types of cases dealt with were as follows:—

Type of Case.	On register 1st Jan, 1933.	New Cases.	Ceased to attend.	Returned for further treatment.	Transferred to other centres.	Discharged.	Died.	Remaining 31st Decem- ber, 1933.
Syphilis, ... ..	80	31	18	6	10	7	2	80
Gonorrhoea, ... ..	39	46	17	...	8	29	1	30
Soft chancres, ... ..	...	...	...	...	...	...	...	...
Non-specific venereal infections,	3	6	1	...	...	3	...	...
Conditions other than venereal.	2	17	...	...	...	19	...	...

This shows a defaulter rate of 15 per cent. in the case of syphilis, and 20 per cent. in gonorrhoea. These are fairly satisfactory figures, but further improvement is required. The average defaulter rate during the period 1924-1932 was syphilis 22 per cent., gonorrhoea 21 per cent.

Of the 31 new cases of syphilis treated, 8 were in the primary stage, one in the secondary and 22 in the later stages of the disease. In three of them the disease was congenital, the age periods being 5-15, 1; 15-25, 2. One case was definitely the result of an extra genital infection.

Two patients were admitted to Craw Road Hospital, Paisley, for treatment, one on account of gonorrhoea and one of septic ballanitis. In each case treatment lasted seventeen days.

#### FEMALES.—

The Craigieknowes Clinic continued to give satisfactory service, but it will soon be transferred to the more central and commodious new clinic in Terrace Road. There was no change in the arrangements during the year.

The following table gives the comparative figures for the years during which the clinic has been in operation:—

Period under Review.	New Cases	Attendances at Clinics.	Attendances at Centre.	Total Attendances.
24th November to 31st December, 1929.	12	107	7	114
1930.	100	1,209	127	1,336
1931.	128	2,061	458	2,519
1932.	93	2,064	652	2,716
1933.	101	2,127	1,077	3,204

Fifty-nine specimens of blood were examined by the Wassermann test at the Public Health Laboratory, Glasgow, and 169 smears for gonococci were examined in the centre.

The following table gives information regarding the type of cases:—

TYPE OF CASE.	On Register 1st Jan'y., 1933.	New Cases.	Ceased to attend.	Returned for further treatment.	Transferred to Other Centres.	Discharged.	Died.	Remaining 31st Dec., 1933.
Syphilis, - -	37	13	15	4	—	—	—	39
Gonorrhoea, - -	30	29	29	3	—	—	—	33
Soft Chancre	—	—	—	—	—	—	—	—
Non-specific venereal infections,	—	—	—	—	—	—	—	—
Conditions other than venereal,	17	59	—	—	—	51	—	25

This gives a defaulter rate of 28 per cent. in the case of syphilis and 47 per cent. in gonorrhoea. These figures cannot fairly be compared with those of males, but they indicate an unsatisfactory state of affairs which can only be remedied by some form of legislative compulsion. The average defaulter rate during the period 1931-32 was syphilis 39 per cent., gonorrhoea 44 per cent.

Of the thirteen cases of syphilis which came under treatment for the first time during 1933, all were in the later stages of the disease, 3 suffered from congenital syphilis, one of whom was under one year of age, and two were between 5 and 15 years.



It was not found necessary to admit any patient to hospital during the year under review.

## HOSPITAL ACCOMMODATION AND AMBULANCE ARRANGEMENTS.

### GREENOCK AND DISTRICT COMBINATION HOSPITAL, GATESIDE :—

Owing to the continued unusual prevalence of scarlet fever during the year no cases of tuberculosis were admitted to the hospital, otherwise there has been no change in the general arrangements for the admission of patients for treatment.

In October and November, the peak months of the scarlet fever epidemic, the hospital was greatly overcrowded and at times considerable difficulty was experienced in gaining admission for certain cases of other infectious disease; one case in fact was admitted to the County Infectious Diseases Hospital at Johnstone owing to lack of accommodation, and quite a number of others were kept at home for the same reason. By the end of the year, however, the pressure on the hospital beds had considerably lessened.

I am indebted to the Medical Superintendent for the following information regarding the treatment of cases and the results obtained:—

#### 1.—CASES TREATED CLASSIFIED ACCORDING TO DISEASE.

DISEASE.	Cases in Hospital 1st January, 1933.	Admitted during 1933.	Discharged during 1933.	Died in Hospital.	Cases remaining in Hospital 31st December, 1933.	Fatality Rate.
Diphtheria. ...	22	208	189	10	31	4.34
Erysipelas. ...		12	10	2	..	16.66
Scarlet Fever.	111	1,338	1,212	12	225	0.82
Puerperal Fever.	2	9	7	4	..	36.36
Measles.		6	6	..	..	
Tuberculosis.				...	..	
Other Diseases.	1	41	35	7		16.66
Total.	136	1,614	1,459	35	256	2.00

## II.—CASES CLASSIFIED ACCORDING TO DISTRICTS FROM WHICH ADMITTED.

DISTRICT.	Cases in Hospital 1st January, 1933.	Admitted during 1933.	Discharged during 1933.	Died in Hospital.	Cases remaining in Hospital 31st December, 1933.
Greenock, ... ..	112	1,307	1,187	27	205
Gourock, ... ..	5	115	94	2	24
Port-Glasgow, ... ..	18	182	169	6	25
County, ... ..	1	10	9	..	2
Total, ..	136	1,614	1,459	35	256

## III.—AVERAGE PERIOD OF RESIDENCE OF PATIENTS DISCHARGED DURING 1933.

DISEASE.	Discharged during 1933.	Aggregate Number of Days' Residence.	Average Days' Residence.
Scarlet Fever, ... ..	1,212	44,500	36
Diphtheria, ... ..	189	5,902	31

## IV.—CASES ADMITTED FROM THE BURGH OF GREENOCK CLASSIFIED ACCORDING TO DISEASE.

DISEASE.	Cases in Hospital 1st January, 1933.	Admitted 1933.	Discharged 1933.	Died 1933.	Cases remaining 31st December, 1933.	Fatality Rate.
Scarlet Fever, ... ..	89	1,107	1,005	9	182	0.75
Erysipelas, ... ..	..	10	9	1	..	10.00
Diphtheria, ... ..	20	152	141	8	23	4.65
Puerperal Fever, ... ..	2	8	6	4	..	40.00
Measles, ... ..	..	4	4	..	..	..
Tuberculosis, ... ..	..	..	..	..	..	..
Enteric Fever, ... ..	..	5	5	..	..	..
Pneumonia, ... ..	..	5	1	4	..	80.00
Other Diseases, ... ..	1	16	16	1	..	5.88
Total, ..	112	1,307	1,187	27	205	1.90

## WEST RENFREWSHIRE COMBINATION SMALLPOX HOSPITAL.

No case of smallpox occurred during the year, and the arrangements for dealing with that disease when it occurs remain unchanged. Part of this hospital is occasionally used for the treatment of cases of scarlet fever, but otherwise the hospital is reserved for smallpox only.

## SMITHSTON HOSPITAL.

Information regarding the hospital section of Smithston Institution will be found under "Medical Care and Nursing of the Sick Poor."

## AMBULANCE ARRANGEMENTS.—

There has been no change in these services during the year.

## MEDICAL CARE AND NURSING OF THE SICK POOR.

## (I). NURSING SERVICE.

The necessary nursing service was provided, as formerly, by the Greenock and District Nursing Association under the direction of the District Medical Officers, a grant being made by the Corporation to cover the work carried out.

## (II). MEDICAL SERVICE.

*General.*

The arrangements whereby two doctors carried out this work continued during the year and proved on the whole satisfactory.

The Corporation's decision not to provide as a routine medical attendance to persons other than those on the poor roll was adhered to during the year. Certain urgent cases, however, in special circumstances were granted this measure of relief. A final solution of this problem is not yet in sight, but the new Unemployment Bill at present before Parliament might help to clear up the situation and achieve uniformity of practice in the different areas.

The following number of persons received outdoor medical relief during the year:—

Males.	-	-	1,239
Females.	-	-	1,969
Children,	-		786

*Mental.*—

No progress has been made in the provision of facilities for the diagnosis and treatment of mental illness at an early stage. The establishment of an out-patient clinic is now feasible, but the necessary observation ward accommodation is not yet available.

## III.—INSTITUTIONAL MEDICAL ARRANGEMENTS:—

*Hospital.*—

There is no change to record in the arrangements at Smithston Institution, and the hospital section remains unsatisfactory.

## DR. LEGGETT'S ANNUAL REPORT ON SMITHSTON POORHOUSE.

I beg to submit the following report, arranged as far as possible on the lines indicated in Public Assistance Circular No. 29, Appendix B., issued by the Department of Health for Scotland on the 7th January, 1933.

With few exceptions, the conditions existing at this Poorhouse remain the same as described in the report submitted to the Medical Officer of Health on the 22nd February, 1933.

The location and structural design of the building are open to the same criticism as was put forward in some detail last year. The same difficulty exists regarding accommodation and the classification and segregation of patients. The available beds were fully occupied during the greater part of the year, and there was some crowding in the female wards. All types of cases, except those requiring major surgical treatment, continue to be admitted to the confined space which constitutes the hospital.

No change affecting organisation or staffing has taken place except that a nurse with children's hospital training has been put in charge of the nursery. The proposal referred to last year, to have children up to the age of five years transferred to the care of the trained hospital staff, did not materialise, nor did the arrangement by which a poorhouse ward was to be utilised for hospital cases.

The staff of nurses available has been sufficient to supply the nursing attention necessary for the particular type of patient

admitted. At present four of the nurses hold the certificate of general hospital training, others are fever trained, and every nurse on the staff at present holds the C.M.B. certificate. The custom of depending upon poorhouse inmates instead of ward maids to assist the nurses in keeping the wards and annexes clean is not satisfactory; considerable difficulty has been experienced at times in securing suitable and willing assistance for this work.

The large female ward has been equipped with new bedsteads to replace those referred to in my last report. The old type of poorhouse bedstead is still in use in the male infirm ward. Although a hospital ward, it is the only place where this type of bedstead is in use. The only washing and lavatory accommodation available for the patients in this ward is in an unsuitable and exposed position, and is not solely for the use of hospital patients.

The patients are supplied with sufficient food and sick diet, and I have received no complaint in this connection during the year.

The heating and hot water supply and lighting of the wards is sufficient. There is no difficulty in obtaining the supply of medicines, surgical dressings and other appliances necessary for the medical and nursing treatment of the patients.

The Ultra Violet Ray Lamp continues to be in constant use chiefly in treating debilitated children.

At the 31st December, 1932 there were 90 sick persons in residence in the hospital wards, consisting of 51 men, 35 women, 3 boys and 1 girl. During the year 1933 there were admitted 124 men, 69 women, 20 boys and 17 girls—including 2 male and 6 female infants born in the institution—that is a total of 230 admissions, making the number under treatment 320. Of this number 110 left the hospital wards as recovered, 37 as relieved, 48 died, 7 gave due notice and left voluntarily, and a further 30 were removed for various reasons, e.g. as transfers to the asylum, tuberculosis pavilion, Royal Infirmary, Eye Infirmary, and to other poorhouses. Eleven infants accompanied their mothers on the latter's discharge.

As compared with last year there were 83 fewer admissions and 16 fewer deaths. About 64 per cent. of those admitted recovered sufficiently from the diseases from which they suffered on admission to justify their discharge.



Of those admitted, 76 were over 60 years of age, 32 being over 70, 6 over 80 and 2 over 90. One hundred and thirty seven patients were admitted during the six months October to March, and 93 during the six months April to September. January showed the highest admission rate and August the lowest.

The types of cases dealt with were those suffering from acute and chronic bronchitis, chronic cardiac disease with vascular degeneration, cerebral haemorrhage, rheumatic conditions, varicose ulceration of legs, skin diseases, advanced senility, and a number of cases of pneumonia, gastritis and other derangements of the digestive system. Many were in a very neglected, verminous and debilitated state on admission, and others moribund.

Thirty-five of those who died were over 60 years of age, 14 being over 70, 3 over 80 and one over 90. Only one adult under 30 died.

The chief causes of death were:—Cerebral haemorrhage, cardiac diseases, senile decay, bronchitis, and cancer.

The length of residence of those who died or were discharged varied from 1 day to 2,093 days.

Of 41 children—e.g. up to 14 years of age—treated during the year, only one died, viz., an infant aged three months who was admitted in a state of congenital debility, deeply jaundiced and suffering from acute bronchitis, with temperature 105 degrees F. Some of the others were seriously ill with pneumonia, bronchitis, etc., but all made excellent recoveries with capable nursing.

There were eight confinements as compared with 21 last year. Although this may appear a comparatively small number, it is a matter for satisfaction to be able to state that there were no cases of maternal or infantile mortality, and no stillbirths, especially as most of the maternity cases admitted were far from being in a good state of health and produced congenitally unhealthy or defective infants. In my experience of this hospital maternal mortality and puerperal fever, about which so much is written nowadays, has been practically unknown, which reflects great credit on the nursing staff.

The Department is fully conversant with the position regarding administration and the general facilities available for the care and treatment of the sick.



*Asylum.*—

This section of Smithston Institution has again been consistently fully occupied and the provision of further accommodation requires attention.

DR. LEGGETT'S ANNUAL REPORT ON GREENOCK PAROCHIAL  
ASYLUM.

I have the honour to submit the following report on the Greenock Parochial Asylum for the year ending 31st December, 1933.

## GENERAL STATISTICS.—

On the 31st December, 1932, the number of patients on the Asylum Register was 253, of which 139 were men and 114 women. During the year under review 31 men and 19 women were admitted, so that the total number under treatment was 303, that is 5 less than last year.

The number discharged was 30; of these 23 left the institution as "recovered," 5 were transferred to other asylums, and 2 were discharged as "not insane."

The number of deaths was 21.

The names of 252 patients remained on the register on the 31st December, 1933, of which 143 were men and 109 women, being an increase of 4 men and a decrease of 5 women as compared with the corresponding date last year.

The daily average number resident was 252.

Seven boarders were accommodated in the asylum for variable periods during the year, chargeable respectively to Glasgow, 2; Selkirk; Perth and Kinross; Stirling; Ayr, and Renfrew.

Six service patients were in residence at the end of the year, one having been admitted from Stirling District Asylum. Five of these belong to the Burgh of Greenock and one to the County of Argyll. The cost of maintenance and of certain extras continues to be defrayed by the Ministry of Pensions and this arrangement also applies to the case of an ex-service-man not in the service patients' category.

## ADMISSIONS. —

The number of admissions was 50, consisting of 31 men, and 19 women, being an increase of 3 men and a decrease of

10 women as compared with last year. Thirty-five were admitted for the first time, 1 was returned from being "boarded out" and 14 were re-admissions. Of the latter, 7 had one previous attack, 4 had two previous attacks, and the remaining 3 had five, six, and seven attacks respectively. Three patients were transfers from other mental hospitals, 2 were admitted from H.M. Prison, Gateside, and one was a deportee from Canada. Three patients were discharged and re-admitted during the year.

The following are the forms of mental disorder from which those who were admitted suffered:—

Melancholia, 8; dementia praecox, 7; organic dementia, 7; congenital mental deficiency, 4; manic depressive insanity, 4; exhaustion psychosis, 3; mania, 3; paranoia, 2; general paralysis of insane, 2; epileptic insanity, 2; chronic delusional insanity, 2; confusional insanity, 1; alcoholic mania, 1; depressive stupor, 1; senile dementia, 1; encephalitis lethargica, 1. One patient was found to be "not insane" and was discharged within three days.

#### AETIOLOGY.—

It will be noticed that the number of female admissions has fallen by ten as compared with last year, and is twelve less than the male admissions for the present year.

The ages of those admitted ranged from 16 to 83 years.

The usual conditions associated with the causation of insanity were present, such as hereditary predisposition, congenital defect, epilepsy, alcoholism and venereal disease. The disastrous results of the last are not always realised as causative factors of insanity and of the destruction of the Central Nervous System.

A large number of cases occurred during the various critical periods of physiological change, chiefly that of adolescence, resulting in that malignant form of insanity called dementia praecox. A smaller number were admitted at puberty and the climacterium. The degenerative changes associated with senility are also important factors which produce mental disturbances of various types. Organic disease of the brain was a definite cause in eight admissions.

Immediate exciting conditions such as lack of attention to the precautions which are so necessary towards preserving the bodily health were much in evidence. There is no doubt that

sanitation, education and child welfare can, by providing a healthy body in the young person, develop and improve such potential mental energy, and bodily conditions as the individual possesses. But if there is an inborn failure of mentality either in psycho-physical energy, educability or moral sense, then there must be an innate predisposition to some form of mental deficiency. Heredity is the outstanding primary cause in some of the worst forms of insanity, the symptoms of which most commonly show themselves during the critical periods of pubescence, adolescence, and the climacterium. The physical cause in the former is the disturbance caused by production for the first time of certain internal secretions, the mental cause is the change in the social status of the adolescent, and the climacterium is the period when the powers begin to fail to sustain the increased effort needed at this time. After the onset of the period of senescence, the incidence of insanity rises rapidly year by year. Senile insanity does not recover, nor do 85 per cent. of the adolescent cases.

Inherited nervous and mental defects tend to appear in an increasingly serious form in succeeding generations.

#### DISCHARGES.—

The number of patients discharged during the year was 30. Of this number 23 left the institution as "recovered," one was transferred to each of the following asylums:—Ayr District Asylum, Roxburgh District Asylum, Perth District Asylum, Stirling District Asylum, and the lunatic wards of the Southern General Hospital. One was discharged on expiry of emergency certificate as not being certifiable as insane, and one on account of the Sheriff having refused to supply the necessary warrant for his detention.

Of those discharged recovered nineteen out of a total of 23 left the institution within six months, of whom eight were discharged within three months. One of the remaining four had been in the institution for 13 years before the nature of her mental condition and the circumstances existing at her home came to justify her discharge.

The recovery rate for the year, calculated on all admissions, including transfers from other asylums, is 46 per cent., which compares favourably with the average recovery rate of 34.5 per cent. for all other Scottish asylums for 1932.

This record should dispose of any question of undue detention, as is quite frequently suggested by visitors and relatives.

I am quite often questioned by persons visiting the wards as to whether a particular patient could not be discharged, apparently overlooking the fact that it is my constant daily concern to find patients who are sufficiently recovered to leave the asylum even on trial or pass in order to relieve overcrowding. It should also be borne in mind that the greater the number of patients discharged recovered, the greater will be the credit and satisfaction due to the medical and nursing staff at the end of each year.

#### DEATHS.—

Eleven men and ten women died during the year, being an increase of two men as compared with last year, the number of female deaths remaining the same.

The death-rate, calculated on the daily average number resident, was 8.3 per cent., which is roughly about the average for all Scottish asylums.

The certified causes of death were as follows:—Valvular disease of the heart, 3; myocarditis, 3; general paralysis of insane, 1; cerebral disease with epilepsy, 1; cerebral haemorrhage, 1; encephalitis, 1; encephalitis-lethargic, 1; chronic cardiac disease, 1; chronic rheumatism, 1; phthisis, 1; cerebro-spinal disease-congenital, 1.

Of those who died during the year one had been resident in the asylum for 35 years, and two others for 27 and 13 years respectively. Seven patients were so seriously ill on admission, that they died within a month. One of these was aged 83.

There were no exceptional or epidemic forms of illness amongst the patients; no escapes and no accidents of a serious nature occurred during the year.

#### ENTERTAINMENT AND OCCUPATIONAL THERAPY.—

The usual weekly dances, Hallowe'en, Christmas, New Year, and other monthly entertainments continue to be provided for the patients during the winter months. Several excursions by motor 'bus took place during the summer months. At this season all patients who are fit, spend as much time as possible in the forenoon, and afternoon, on the lawn. Many of the male patients are keen and proficient bowlers and the green is in constant use during the forenoon, afternoon, and evening when weather permits.



The wireless continues to be a source of much entertainment to the patients generally, and of great interest to many.

Working parties are employed in the grounds every day and others are taken for walking exercise. These male out-workers, by their exertions, keep the grounds in order, do all the daily carting and removing of refuse rubbish, cultivate the garden, gather in the crops, and thus enable the institution, including the poorhouse, to be supplied with potatoes, other vegetables, and flowers. Female patients get through a large amount of household and needle work and assist in the laundry work for the whole institution, including that of the male and female poorhouse and staff. Although laundry work may be congenial to some, nevertheless it entails spending long periods in a heated atmosphere, and is not suitable to every type of patient. These laundry workers especially, and male out-workers, certainly deserve every consideration and privilege, and the most comfortable and cheerful housing accommodation that can possibly be given them on account of the great saving of expense to the institution, which results from their labours. Unfortunately a fact that is often overlooked is, that a person who is certifiable as insane, though he or she may be in apparently good bodily health, is, nevertheless, one who is suffering from an illness. Consequently it is necessary to exercise great care in order to avoid asylum patients undertaking work for which they are unfit or which is unsuitable to their state of mental health. Mental patients are encouraged to employ themselves, but are not in any sense forced to work. The provision of occupation, employment, recreation, and entertainment for asylum patients, is an absolute necessity as a form of treatment; in fact no other form of treatment can take the place of regular healthy exercise and occupation, especially in the open air for those who are physically fit, but the arrangement and regulation of all such matters are purely a medical concern. By giving fair play to these normal activities which tend to induce natural rest and sleep and thus assist the human organism in restoring a healthy reaction of the mind and body, the resort to the use of sedative drugs is avoided. There is quite sufficient work connected with the asylum itself to provide the necessary employment for the patients in that department, and there is no justification for expecting persons who are suffering from mental illness and are compelled by law to detention in an institution to perform work for those who are not suffering from mental derangement and are not legally compelled to remain under control. It should never be forgotten that the primary

and most important object in providing ground around an asylum, whether for cultivation or other purposes, is to secure an outlet for suitable employment, exercise and recreation and not as a means towards monetary gain, though a considerable result in the latter direction does naturally follow when the employment is properly organised.

As the Committee are aware, considerable overcrowding exists in the wards, especially on the male side.

#### STAFF.—

On 1st January, one of the senior nurses who had been on the staff for almost nine years, went off duty on account of illness and was admitted to the Greenock Royal Infirmary on the 4th January. Her illness was of a serious nature and she did not improve sufficiently to resume duty. Later she was conveyed to her home in North Uist and died on the 17th July. A nurse developed appendicitis and had an operation performed in the Greenock Royal Infirmary. She returned to duty after four weeks absence. Another nurse was incapacitated from duty for eight weeks on account of rheumatism.

Attendant Cameron, who had been on the staff for nearly eighteen years, was superannuated from the service on account of incapacity resulting from accidental injuries sustained when off duty.

Sixteen other members of the staff were off duty for shorter periods on account of ordinary forms of illness.

During the year four male and five female nurses qualified at the preliminary nursing examination of the Royal Medico-Psychological Association. Five male and two female nurses succeeded at the Final Examination in qualifying for the nursing certificate of the Association.

Probationer male and female nurses receive courses of lectures, demonstrations and general ward training in order to equip them with the necessary qualifications to enter for these examinations.

Eleven patients are allowed "parole" in the grounds about the institution and one outside the grounds.

H.M. Commissioner of the Board of Control paid official visits on the 17th March and 2nd August. Favourable reports were made after each visit.



I have much pleasure in acknowledging the loyal support of the various members of the nursing staff who have assisted me so ably in the care and treatment of the patients.

### BACTERIOLOGICAL EXAMINATIONS.

All bacteriological examinations of ordinary specimens connected with infectious disease were, as formerly, carried out by the Medical Superintendent of Gateside Hospital.

The following table gives the numbers and results of the examinations made:—

Nature of Specimen.				Positive.	Negative.	Total.
Throat mucus, ... ..	...	...	...	124	822	946
Sputum, ... ..	...	...	...	72	344	416
Blood, ... ..	...	...	...	3	24	27
Cerebro-spinal fluid, ... ..	...	...	...	2	24	26
Fæces, ... ..	...	...	...	...	5	5
Urine, ... ..	...	...	...	...	5	5
Vaginal smear, ... ..	...	...	...	...	1	1
Fluid from hip, ... ..	...	...	...	...	1	1
Pleural fluid, ... ..	...	...	...	...	7	7
Abdominal fluid, ... ..	...	...	...	...	1	1
Pus, ... ..	...	...	...	...	2	2
Total, ... ..				201	1,236	1,437

In addition certain special examinations were carried out at the Public Health Laboratory at Glasgow, with the following results:—

Nature of Specimen.		Suspected Disease.	Positive.	Negative.	Total.
Fæces, ... ..	...	Enteric Fever,	2	5	7
Urine, ... ..	...	Enteric Fever,	1	2	3
Fæces, ... ..	...	Dysentery,	3	1	4
Urine, ... ..	...	Dysentery,	—	1	1
Total, ... ..		...	6	9	15

Of the three cases in which dysentery organisms were found, two were of the Flexner and one of the Sonne type.

Nothing further has been done with regard to the establishment of a Corporation Laboratory.

Specimens of an insect which was found infesting a dwellinghouse were sent for identification and were found to be adult forms of *Thermobia Domestica*, the Fire Brat. This insect is more commonly found in bakehouses, heating ducts, boiler houses, etc., than in dwellinghouses, but its presence in the last mentioned is quite well known. It is entirely harmless. Appropriate measures were taken to deal with the infestation.

### SERA, VACCINES, AND INSULIN.

ANTI-DIPHTHERIA SERUM.—The emergency supply of diphtheria antitoxin at the Public Health Office and the Central Police Station were kept up during the year. Eighty-four thousand units were purchased at a cost of £4 5s. 0d.

ANTI-MENINGOCOCCUS SERUM.—One hundred ccs. of this serum were purchased at a cost of £1 2s. 8d.

T.A.B. VACCINE.—None of this vaccine was purchased during the year, but twelve doses were sent to Smithston Institution for the inoculation of the asylum staff.

INSULIN.—Forty-two thousand units were purchased at a cost of £27 8s. 0d. and 43,700 units were supplied to five patients under the approved arrangements.

ANTI-SCARLATINAL SERUM.—The use of this serum was continued during the year. Four hundred and eighty ccs. were purchased at a cost of £20, and 200 ccs. were issued to medical practitioners. One hundred and eighty ccs. were used in the Children's Hospital and the remainder in the Maternity Hospital.

### PORT SANITARY ADMINISTRATION.

During the year 63 liners inward bound from Canada were boarded by the staff of the department. This number is one less than last year, the figures for ten years being as follows:—

1924,				12
1925,	.	..		24
1926,	...	...	.	20
1927,	...	...	...	28
1928,	...	...	...	49
1929,	...	...	.	63
1930,	...	...	...	66
1931,	...	...	...	69
1932,	...	...	...	64
1933,	...	...	...	63

The total number of passengers landed from these ships was 7,480 of whom 581 were aliens and 39 aliens in transit to other countries. One hundred and four aliens were examined at the request of the Immigration Officers, but in no case was a medical certificate issued.

Two cases of pneumonia were removed to Greenock Royal Infirmary, one case of diphtheria to Gateside Hospital, one case of pulmonary tuberculosis to Smithston Pavilion, and one case of gonorrhoea to Craw Road Hospital, Paisley.

In addition to those ships mentioned above, one liner on five short cruises landed 2,205 passengers in the burgh. From this ship one case of suspected appendicitis was removed to Greenock Royal Infirmary but was later transferred to Gateside Hospital as a case of paratyphoid B. fever, and later another case of paratyphoid B. fever was removed direct to Gateside Hospital. Both of these cases were members of the ship's crew.

On 1st May the Port Sanitary Regulations (Scotland), 1933, came into operation and very greatly increased the work of the department in relation to shipping. Under these regulations all ships arriving from a foreign port are liable to detention at a mooring station unless they have had no infectious disease aboard in the previous six weeks and have not called at an infected port. Those falling within the latter category have to be boarded personally by the Medical Officer as soon as possible after arrival in the district. As a result many ships had to be boarded at the Tail-of-the-bank or in the harbours as soon as they arrived. The regulations were found to be very difficult, and at times almost impossible to carry out, but after a rather trying period arrangements were made which allowed the work to be done more or less satisfactorily. These arrangements included:—

(1) The exemption from detention of ships which had or had had infectious disease aboard except plague, cholera, yellow fever, typhus fever and smallpox, and also such ships as had already had the prescribed measures carried out in another port in Great Britain or Ireland.

(2) The establishment of the anchorage at the tail of the bank as an outside mooring station for ships detained on account of the occurrence of a case of plague or the presence of plague infected rats on board.

(3) The establishment of "the ordinary place of mooring, discharge or loading" as an inside mooring station for all other detained ships.

(4) The appointment of Dr. H. F. Kerr as deputy to the Medical Officer for the purposes of the regulations.

To the first three of these arrangements the Customs and Harbour Authorities gave their consent in accordance with the terms of the regulations. Lists of infected ports were prepared weekly and forwarded to the pilots and Customs Authorities: these lists were compiled from information supplied by the Ministry of Health.

One hundred and thirty cargo ships were boarded by the staff of the department during the year, either at the anchorage or in the harbours, and a general survey was carried out in each case. The chief articles of cargo discharged by sixty-three ships were:—Sugar, bone meal, linseed, timber, cotton seed, soya beans, pig iron, steel plates and molasses, while 62 docked for overhauling and five for bunkers. In all cases rat guards or equivalent measures were insisted upon as formerly. On the whole these ships were maintained in good sanitary condition and any defects discovered were pointed out for appropriate action. The health of the crews was good.

Fifty-one ships produced valid deratisation certificates and 44 valid deratisation exemption certificates, all issued in accordance with article 28 of the International Sanitary Convention of Paris. Seven ships had valid deratisation certificates not on the International form, 7 had deratisation certificates and 12 deratisation exemption certificates which were no longer valid, while 9 had no certificates of any kind. In the case of those with certificates no longer valid 11 had certifi-

cates issued, and in 8 the Master's assurance was received that he would obtain a fresh certificate after proceeding to his home port. Of the nine ships with no certificate, five were granted certificates, 2 sailed without the issue of a certificate, one was fumigated early in 1934 and granted the appropriate certificate, while one merely entered the harbours in the course of her voyage on account of a shifting cargo.

Thirteen deratisation certificates were granted during the year, 12 after fumigation by hydrogen cyanide, 96 rats being recovered, and one by sulphur dioxide, 7 rats being recovered. Thirty-three deratisation exemption certificates were issued after due examination of the ship had been carried out.

The Parrots (Prohibition of Imports) Regulations (Scotland) continued during the year. Three parrots and 2 love birds were discovered on four ships and the appropriate notice was served on the Master and an undertaking received in each case.

During the year the telegraphic address "Portelth, Greenock" was registered for the purposes of messages being received in connection with shipping.

## DISINFECTION.

### HOUSE DISINFECTION.—

No change was made in the arrangements for house disinfection during the year.

Ten disinfections were carried out following diseases which were not considered infectious and appropriate charge was made in each case.

### DISINFECTING STATION.—

The work at the disinfecting station was carried out on the same general lines as last year, and the plant gave satisfactory service during the period. A new floor was laid in the wash-house and has made a great improvement there. The premises were entirely repainted during 1932, but no note of this was made in last year's report.

The number of articles dealt with totalled 23,577 and of these 22,386 were disinfected and washed, 11,091 were disinfected only, while 403 were destroyed. Of the articles dis-



infected, 14,949 were subjected to steam under pressure, 7,440 were disinfected with antiseptic solution, and 1,188 were sprayed with formalin.

### RECEPTION HOUSE.

The Reception House was only seldom used for the isolation of contacts of infectious disease during the year. Five families comprising twenty-nine persons were housed for periods amounting in all to 62 days, the average stay per person being 2 days.

Six of these persons were taken to the Reception House to allow of disinfection after diphtheria, 13 were admitted in order that satisfactory disinfection of house, bedding and personal clothing might be carried out on account of scabies, the disease being treated while the persons were in residence. Six were admitted for cleansing on account of vermin infestation and four because of the flooding of their homes owing to burst pipes.

### MILK AND DAIRIES.

The milk supply continued to receive constant attention and the plan of routine bacteriological examinations was continued and extended during the year.

In cases where the result of the examination was unsatisfactory the attention of the producer or dealer was drawn to the fact and an effort made to find and correct the cause. In the case of outside supplies any unsatisfactory report received was communicated to the Medical Officer of Health of the area concerned. By this means improvement in methods will undoubtedly result in time, and indeed is already becoming manifest in the burgh.

The percentage of graded milk on sale is rather more than last year, namely :—

Certified Milk, - - - - -	2.30
Grade A. Tuberculin Tested Milk, - - - - -	0.38
Pasteurised Milk, - - - - -	44.83

making a total of 47.5 per cent. of all milk on sale in the burgh.



Under the scheme for bacteriological examination 317 samples were examined from 291 supplies, and the results were as follows:—

	Sources of Supply.							Distribution		
	Local Producers.	Outside Sources of Supply to Wholesale Dealers.	Outside Producers retailing in Burgh.	Outside Producers supplying Retail Purveyors.	Graded Milk.	Outside Producers supplying for Pasteurisation.	Creameries.	Retail Purveyors.	Wholesale Dealers.	Total.
Number of Samples from which were taken, - - - -	45	50	12	17	26	40	1	84	16	291
Number of Samples, - - - -	45	61	15	22	29	40	1	88	16	317
Bacterial content of samples per cc.										
Not over 5,000, - - - -	8	3	1	5	19	12	—	11	1	60
Over 5,000 not over 10,000,	6	4	2	2	2	6	1	6	3	32
„ 10,000 „ 30,000,	18	21	3	6	2	12	—	23	4	89
„ 30,000 „ 100,000,	12	19	4	4	1	4	—	20	3	67
„ 100,000 „ 200,000,	1	4	2	1	1	2	—	11	3	25
„ 200,000 „ 500,000,	—	5	1	1	4	1	—	7	2	20
„ 500,000 „ 1,000,000,	—	1	3	2	—	3	—	5	—	14
„ 1,000,000 „ 2,000,000,	—	4	—	1	—	—	—	5	—	10
„ 2,000,000, - - - -	—	—	—	—	—	—	—	—	—	—
B. Coli absent, - - - -	24	29	11	11	21	22	—	31	5	154
B. Coli present in 1/10cc., - -	21	32	4	11	8	18	1	57	11	163
B. Coli present in 1/100cc., -	12	13	4	3	5	8	—	42	8	95

These figures are undoubtedly gratifying, especially in respect of the milk of local producers and graded milk. There is, however, still room for considerable improvement.

Eighty-one samples of milk were submitted for examination by Guinea Pig Inoculation and evidence of tuberculosis was found in two of them, both of which referred to milk produced outwith the burgh. On information being sent to the Medical Officer of the district concerned, one cow in one case, and two in the other, were discovered to be suffering from tuberculosis and were dealt with under the Tuberculosis Order, 1925.

No cases of infectious disease spread by milk were encountered during the year, although a very strict watch was kept on account of the prevalence of scarlet fever, and no difficulty was experienced in dealing with such cases as

occurred in milk producing premises. It was not found necessary to stop the milk supply from any dairy farm or milk shop during the year.

The Veterinary Inspector reports that the average number of cows in the burgh is 211, and that the standard of cleanliness is very satisfactory. During the year 55 inspections were carried out, and 1,057 examinations made. Five cows were found to be suffering from inflammation of the udder and two from abscesses of the udder. The use of the milk from these cows for human consumption was prohibited until the condition cleared up. Five samples of milk were taken from cows with abnormal udders and subjected to examination by Guinea Pig Inoculation. One of these samples was found to contain tubercle bacilli and the cow was slaughtered under the Tuberculosis Order, 1925. In no case was the Tuberculin Test applied under Section 22 of the Milk and Dairies (Scotland) Act, 1914.

### MEAT INSPECTION.

The work at the slaughterhouse continued to be satisfactory, and the arrangements for meat inspection during the year remained unaltered.

The following information which refers to the period 16th May, 1933, to 15th May, 1934, has kindly been supplied by Mr Peter McIntyre, M.R.C.V.S., Veterinary Inspector:—

CLASS.	Number Slaughtered.	Number affected with Tuberculosis.	Percentage affected with Tuberculosis.	Whole Carcasses seized for Tuberculosis.	Parts of Carcasses seized for Tuberculosis.	Whole Carcasses seized for diseases other than Tuberculosis.	Parts of Carcasses seized for diseases other than Tuberculosis.
Bullocks	2,124	199	9.3	1	16	2	—
Bulls,	120	37	30.8	1	—	—	—
Cows,	660	373	56.5	27	48	4	12
Heifers,	760	90	11.8	1	8	2	3
Swine,	2,043	126	6.1	1	1	8	9
Sheep,	12,893	—	—	—	—	17	7
Calves,	1,379	6	0.43	2	—	7	3
Total.	19,979	831	4.10	33	73	40	34

The following is the list of conditions other than tuberculosis which were responsible for the total or partial seizure of carcases:—

Total Seizure.—Decomposition, 7; dropsy, 7; emaciation, 8; enteritis, 2; fevered flesh, 2; haemorrhagic septicaemia, 1; imperfectly bled, 1; jaundice, 1; peritonitis, 6; pneumonia, 1; swine fever, 3; swine fever, suspected, 1; tuberculosis, 33.

Partial Seizure.—Abscesses, 1; adhesions, 7; arthritis, 1; arthritis, suppurative, 1; decomposition, 1; decomposition, surface, 1; dropsy, 1; injuries, 15; peritonitis, 4; pneumonia, 1; tendonitis, 1; tuberculosis, 73.

The approximate weight of meat and organs destroyed during the year was 21 tons.

## HOUSING AND TOWN PLANNING.

### HOUSING.—

The following information regarding houses certified for occupancy during the year has been kindly supplied by the Master of Works:—

#### Private Enterprise.—

- 7 semi-detached bungalows of 3 apartments.
- 10 semi-detached bungalows of 4 apartments.
- 1 Cottage of 4 apartments.
- 3 Bungalows of 4 apartments.
- 1 Bungalow of 5 apartments.
- 3 Terrace Houses of 5 apartments.
- 1 Altered dwelling of 5 apartments.
- 1 Altered dwelling of 6 apartments.

#### Local Authority.—

##### Belville Street, Second Development.

- 4 Flatted houses of 4 apartments.
- 12 Tenement houses of 3 apartments.

##### Sinclair Street (Back Ground).

- 4 Flatted houses of 3 apartments.
- 4 Flatted houses of 4 apartments.
- 4 Tenement houses of 4 apartments.

##### Low Cornhaddock Farm.

- 8 Flats of 2 apartments.
- 24 Flats of 4 apartments.
- 10 Tenement houses of 2 apartments.

## Prospecthill Street.

- 21 Tenement houses of 2 apartments.
- 51 Tenement houses of 3 apartments.
- 6 Tenement houses of 4 apartments.

## Hostel.

- 40 Tenement houses of 1 apartment.
- 1 Tenement house of 2 apartments.

The number of houses inspected under the Housing Inspection of District Regulations (Scotland), 1908 was 222 situated in 18 different subjects. Seven of these were closed during the year.

In the Central Area 117 houses containing 142 families and 607 persons were closed during the year, while in other properties 20 houses were closed and 20 families containing 82 persons were displaced. Since the Housing (Scotland) Act, 1930 came into operation 322 houses in the burgh have been closed and 365 families comprising 1,556 persons have been displaced.

Slum clearance is being tackled as energetically as is possible under existing circumstances, and a programme has been laid down for the next five years. Considering its dimensions, 2,013 houses for slum clearance, 350 for the relief of overcrowding, and 650 for other persons requiring houses, it seems doubtful if it can be completed within the stipulated period, but the main thing is that steady progress is being made. The speed of the process depends entirely on the rate at which houses can be erected. That speed in any community is limited by many factors, and those who are waiting for new accommodation would be well to remember this fact, instead of continually worrying themselves and others when all possible speed is being maintained.

Apart from actual demolition and clearance of houses which are past their period of usefulness we have another problem which is partly linked up with it—that of overcrowding. It is to a considerable extent, but not by any means entirely, a problem of the slums, and even a partial solution of the slum problem will certainly help in the abatement of overcrowding.

In connection with this there are three facts that must not be forgotten:—(1) approximately 25 per cent. of the population are living in houses with more than three persons

to a room; (2) 3.8 per cent. of the total houses in the burgh are sublet; (3) 1,000 houses, in addition to those being built for slum clearance, are required now if each family in the burgh are to have a home of their own. This is not a very enviable state of affairs, but it must be faced, and the only remedy in Greenock is the building of more houses. The Housing (Scotland) Act, 1930, makes an effort to deal with it in connection with improvement areas, but the method prescribed and the financial help offered will never solve the overcrowding problem in an unemployment stricken industrial area. Among other things it does not take cognisance of the fact that the majority of the overcrowded population are of similar wage earning capacity to those living in the slums and cannot, therefore, in the main afford to pay any higher rents than the latter, while the rate of subsidy offered could never allow of houses built for overcrowding being let at the same rents as slum clearance houses. Furthermore the Local Authority cannot get a sufficiently accurate idea of what subsidy is going to be forthcoming before they start on an improvement area to induce them to launch out upon it. The Government subsidy for overcrowding will have to be specific, definite and sufficient before industrial local authorities can really tackle the problem with any hope of success.

Reconditioning of houses is also bound up with improvement areas in the 1930 Act, but this procedure, desirable as it is in itself, will not make any great contribution to the solution of the overcrowding problem until the mess is cleared up. Reconditioning too involves the building of additional houses, for if houses are to be properly reconditioned they must in most cases be vacated at least temporarily. If houses were built for this purpose meantime it would act as a break upon the present rehousing programme of the Corporation.

The order of procedure in the burgh in dealing with the condition of habitability and occupancy of houses should, therefore, be (1) building of houses for slum clearance; (2) building of houses for overcrowding; (3) reconditioning of such houses as are found suitable for that procedure. The first will help the second, or the two might be carried out in part concurrently, and the third will be a useful measure when the other two are finished, but not till then.

*The Hostel.*—During the year a hostel for women was completed containing forty self contained houses, each comprising a living room, scullery and water closet, with a bathroom and



wash-house for approximately every six tenants. Hot water is supplied from a central installation. The rents of these houses are at present 5/5d. per week. There is a two apartment house for a caretaker on the premises.

This is a new departure of the housing activities of the Corporation, and is one which looks like solving what has always been a difficult problem in rehousing—the solitary woman who does not want, and as a rule cannot pay for a two apartment house. It is admittedly an experiment and will be watched with great interest.

It seems a pity that a hostel of this nature cannot also be made available for old couples in receipt of Old Age Pension, many of whom would only be too pleased to spend their old age in a house which gives them all the accommodation which they require, and not too much for them to look after.

*Sub-letting.*—Sub-letting still continues in the Local Authority's housing schemes and there is considerable overcrowding partly due to this cause. This evil is difficult to cure once it has started, but it is possible that some treatment may become practicable under the projected legislation to deal with overcrowding. Firm measures are required to prevent its occurrence and should undoubtedly be put into force.

#### TOWN PLANNING :—

No further progress has been made in this matter since last year's report.

### FACTORIES AND WORKSHOPS.

On the register kept by the Local Authority there were 220 workshops including factory bakehouses. Five hundred and one visits of inspection were made by the Sanitary Inspector to factories and workshops, and 76 to other workplaces. In fourteen cases conditions contrary to the requirements of the Factory and Workshop Act, 1901, or nuisances under the Public Health Act, 1892, were discovered as follows :—

(1) Want of cleanliness, ... ..	1
(2) Unsuitable or defective sanitary conditions ...	8
(3) Other nuisances, ... ..	5

Intimations were served in connection with these defects and in all cases were duly complied with.



One notice was received from H.M. District Inspector of Factories in terms of sections 97-100 of the Act of 1901 as required by section 107 (1) (c) of the Factory and Workshop Act.

One list involving 106 outworkers (including 19 resident outwith the burgh) and one list involving 92 outworkers (including 20 resident outwith the burgh) were received in February and August respectively, while 13 intimations were transmitted to other local authorities in the former and 14 in the latter month.

The work carried out by these local outworkers was done under satisfactory home conditions in all cases.

### WATER SUPPLY.

A full supply of water for domestic, trade and mill power purposes was maintained throughout the year. The minimum amount of water in store occurred on 11th November, when there was 114 days supply for all purposes in the various reservoirs.

Quarterly analyses of the water from the different sources were made by the Public Analyst and these showed that it was in all respects suitable for domestic purposes.

### DRAINAGE.

There was no serious trouble during the year with flooding in any of the districts in the town, and the drainage system gave very satisfactory service.

On several occasions in the past flooding in the region of the railway bridge at Brougham Street had been troublesome, but during the year a diversion of the Forsyth Street sewer at Union Street was made and it is hoped that this will help to prevent a recurrence of the trouble.

### RIVERS POLLUTION.

No complaint was received during the year regarding the pollution of streams within the burgh.

On several occasions, however, oil was observed on the foreshore of the burgh which had doubtless come from ships at the Tail-of-the-bank, but no definite evidence could be obtained. As is usual in such cases the ship had left before the oil became apparent. With the increase of oil burning ships this may in the future become a decided menace to the amenity of the burgh, apart altogether from the destruction of bird life which it is liable to cause. If it increases to any great extent some better arrangement for the early detection of such pollution will undoubtedly be required.

During the year application was again made by the Clyde Navigation Trustees for permission to deposit during a period of four years from the 16th April, 1933, upon an area in the vicinity of Rosneath Patch in the Firth of Clyde a quantity not exceeding 250,000 barge tons per annum of materials to be dredged from the River Clyde and of dredgings or excavations from the Shieldhall Docks and from river widenings (and, in the event of exceptional dredging in connection with the launching and passage to the sea of the new Cunarder being necessary, an additional quantity of one million barge tons). Although this continual dumping of dredgings does not appear on ordinary examination to have yet much effect on the foreshore of the burgh, there is little doubt that in time this will come, and once it shows itself it will be impossible to keep the foreshore clear. It appears, therefore, to be a very short sighted policy to allow this huge amount of material to be dumped in a more or less land locked firth when the open sea is not very far distant. Protest was made by the Corporation, but the application was granted. The conditions of grant contain the following:—

(1) That no sewage or other offensive material shall be deposited by the Trustees on the deposit area or in the river or Firth of Clyde above Garroch Head.

(2) That the permission shall be liable to withdrawal at twenty-four hours' notice in the event of the Board of Trade being satisfied that the deposit is causing or is likely to cause, injury.

### NUISANCES.

No medical certificates were issued in connection with nuisances as defined in section 16 of the Public Health (Scotland) Act, 1897.

## METEOROLOGY.

The following information has been kindly supplied by Mr James MacAlister, M.Inst., C.E., Engineer and Superintendent of Water Works, regarding the meteorological data relating to 1933. The readings were all taken at Prospecthill filters, which are situated about two hundred feet above sea level.

MONTH.	Air Pressure.	Air Temperature.		Rainfall in inches.	Number of days on which .01 or more fell.	Humidity per cent.
	Mean Reading at Station	Mean of				
	Level and 32° C.	Maximum.	Minimum.			
January,	29.744	41.4	33.4	8.64	18	86
February,	29.636	44.1	35.7	4.88	18	86
March,	29.530	50.5	38.4	3.95	19	79
April,	29.768	53.4	42.5	2.99	17	79
May,	29.699	58.4	45.7	3.62	20	78
June,	29.616	67.0	52.4	3.09	12	71
July,	29.684	67.9	55.7	3.77	20	77
August,	29.684	65.4	54.9	3.51	20	79
September,	29.855	63.7	51.2	0.71	3	85
October.	29.610	54.6	45.7	3.18	20	83
November	29.709	46.6	38.5	3.35	14	86
December	29.917	43.5	37.0	1.53	12	87

The total rainfall amounted to 43.22 inches, which is to be compared with 62.21 inches in 1932 and 63.62 inches, the mean of the 40 years 1890-1929.

## PROPAGANDA.

The usual supply of leaflets on health matters was maintained for distribution at the Public Health Office. Posters giving information on venereal diseases were displayed in all public conveniences.

By arrangement with the publishers, the magazine "Better Health" was brought into circulation in the burgh during the year and distributed by various means to the extent of 2,000 copies per month without cost to the Corporation.

## APPENDIX.

### TABLE I.—VITAL STATISTICS.

#### (A) BIRTHS, DEATHS AND MARRIAGES.

	Numbers Registered in District.	Transfers.		Corrected Number.		
		Out.	In.	Both Sexes.	Males.	Females.
Total Births (including Illegitimate), - -	1,634	43	47	1,638	818	820
Illegitimate Births, -	79	15	17	81	47	34
Marriages, - - -	472	...	...	...	..	..
Deaths, - - -	1,201	74	68	1,195	621	574

#### (B) DEATHS AND DEATH-RATES IN AGE GROUPS.

AGES.	Population Estimated at Mid-Year by M.O.H.	Number of Deaths.	Percentage of Total Deaths.	Death-rate per 1000 of the Population.	Average Death-rate per 1000 of population during preceding 5 years
Under 1 Year, - -	1,769	177	14.81	100.05	92.68
From 1—5 Years, -	6,265	108	9.04	17.23	16.69
" 5—10 " -	8,239	22	1.84	2.67	3.98
" 10—15 " -	8,024	15	1.26	1.86	1.79
" 15—25 " -	14,174	55	4.60	3.88	3.69
" 25—35 " -	11,651	69	5.78	3.92	4.61
" 35—45 " -	9,863	77	6.44	7.80	7.25
" 45—55 " -	8,653	108	9.04	12.48	13.05
" 55—65 " -	6,244	155	12.97	24.82	29.02
" 65—75 " -	3,380	234	19.58	69.23	75.63
" 75—85 " -	1,079	136	11.38	126.04	150.31
" 85 and over, -	145	39	3.26	268.96	286.91
TOTAL. -	79,486	1,195	100.00	15.03	14.62





TABLE III.—CAUSES OF DEATH—PUBLIC HEALTH DISTRICTS—MEDICAL OFFICER OF HEALTH, 1933.

CAUSES OF DEATH.	District.												Total.	Death-rate per 1000 of Population.		
	A.			B.			C.			D.						
	M.		T.	M.		T.	M.		T.	M.		T.	M.		T.	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.		F.	T.
Typhoid Fever (including Paratyphoid),	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	...
Measles,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	...
Scarlet Fever,	3	1	4	-	1	1	-	-	4	4	-	-	3	6	9	0.1132
Whooping Cough,	10	7	17	-	8	10	-	-	8	14	-	-	20	24	44	0.5535
Diphtheria,	-	-	-	-	2	3	-	-	1	1	-	-	5	3	8	0.1006
Influenza,	7	5	12	-	4	7	-	-	3	12	-	-	24	15	39	0.4906
Cerebro-Spinal Fever,	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1	0.0125
Other Epidemic Diseases,	1	-	1	-	1	1	-	-	2	3	-	-	2	3	5	0.0629
Tuberculosis of Respiratory System,	6	16	22	-	8	9	-	-	7	22	-	-	34	36	70	0.8806
Other Tuberculous Diseases,	5	-	5	-	2	3	-	-	2	4	-	-	9	5	14	0.1761
Other Infectious and Parasitic Diseases,	2	-	2	-	1	2	-	-	1	1	-	-	3	2	5	0.0829
Cancer, Malignant Disease,	23	24	47	-	10	8	-	-	18	37	-	-	65	66	131	1.6480
Diabetes Mellitus,	1	-	1	-	2	2	-	-	4	7	-	-	5	9	14	0.1761
Other General Diseases, Chronic Poisonings,	3	5	8	-	4	4	-	-	7	9	-	-	6	18	24	0.3019
Cerebral Haemorrhage, etc.,	15	14	29	-	10	20	-	-	17	34	-	-	62	54	116	1.4593
Other Dis. of Nervous System & Sense Organs,	5	10	15	-	6	8	-	-	9	17	-	-	22	32	54	0.6793
Heart Disease,	26	16	42	-	13	22	-	-	29	46	-	-	87	69	156	1.9626
Other Circulatory Diseases,	3	4	7	-	1	1	-	-	3	4	-	-	10	11	21	0.2641
Bronchitis,	19	14	33	-	7	6	-	-	5	14	-	-	33	35	68	0.8551
Pneumonia (all forms),	21	11	35	-	8	6	-	-	24	44	-	-	61	41	102	1.2832
Other Respiratory Diseases,	3	-	3	-	1	1	-	-	2	4	-	-	7	4	11	0.1383
Gastric and Duodenal Ulcer,	4	2	6	-	1	2	-	-	1	1	-	-	6	3	9	0.1132
Diarrhoea, etc. (all ages),	6	7	13	-	1	1	-	-	4	12	-	-	16	14	30	0.3774
Appendicitis,	3	1	4	-	3	1	-	-	-	-	-	-	8	2	10	0.1238
Cirrhosis of Liver, etc.,	-	-	-	-	1	1	-	-	1	2	-	-	4	2	6	0.0754
Other Diseases of Liver, etc.,	1	-	1	-	3	5	-	-	5	6	-	-	8	10	18	0.2264
Other Digestive Diseases,	5	1	6	-	2	3	-	-	4	7	-	-	16	11	27	0.3396
Acute and Chronic Nephritis,	4	1	5	-	3	8	-	-	3	1	-	-	5	7	12	0.1509
Other Diseases of Genito-Urinary System,	1	2	3	-	1	1	-	-	1	1	-	-	2	5	7	0.0629
Puerperal Sepsis,	-	-	-	-	3	3	-	-	3	3	-	-	6	7	13	0.0880
Other Puerperal Causes,	-	2	2	-	-	-	-	-	2	2	-	-	4	5	9	0.0880
Diseases of Skin and of Locomotor System,	-	-	-	-	2	1	-	-	2	2	-	-	4	7	11	0.0880
Congen. Deb., Pren. Birth. Malformations, etc.	14	13	27	-	8	20	-	-	9	28	-	-	43	35	78	0.4813
Old Age,	6	3	9	-	3	9	-	-	8	11	-	-	19	25	44	0.5335
Senile,	1	1	2	-	1	1	-	-	2	1	-	-	5	1	6	0.0764
Other Violence,	5	3	8	-	3	4	-	-	5	13	-	-	18	10	28	0.3522
Causes Ill-defined or Unknown,	4	-	4	-	2	1	-	-	2	5	-	-	12	4	16	0.2912
ALL CAUSES.	212	167	379	111	122	243	108	174	377	400	403	806	691	571	1103	15.089



TABLE IV.—POPULATION AND PRINCIPAL RATES  
PER 1,000—REGISTRAR GENERAL—1881-1933.

Year.	Population.	Death-rate.	Birth-rate.	Infantile Mortality Rate.	Tuberculosis Death-rate.	
					Pulmonary.	Non- Pulmonary.
1881-1885	71,578	22.19	38.01	139	2.35	0.96
1885-1890	72,073	18.92	32.23	127	2.03	0.69
1891	63,432	22.54	32.55	163	1.82	0.56
1892	63,027	19.74	35.83	116	2.01	0.65
1893	62,713	20.90	32.96	134	1.59	0.65
1894	62,400	19.23	32.20	133	2.09	0.49
1895	62,090	23.06	33.84	152	1.62	0.82
1891-1895	62,732	21.09	33.47	139	1.82	0.63
1896	61,781	17.84	33.08	120	1.76	0.55
1897	61,475	22.17	33.05	159	2.06	0.68
1898	61,170	21.38	35.20	136	2.07	0.83
1899	67,269	19.64	31.01	142	1.70	0.83
1900	67,776	19.18	32.50	130	1.59	0.84
1896-1900	63,894	20.04	32.96	137	1.83	0.74
1901	68,264	19.45	29.84	132	1.46	0.90
1902	68,756	19.85	31.74	122	1.81	0.94
1903	69,252	18.93	29.56	144	1.68	0.80
1904	69,749	17.65	30.09	123	1.20	0.93
1905	70,253	18.78	30.49	116	1.31	1.05
1901-1905	69,254	18.93	30.34	127	1.49	0.92
1906	70,758	17.89	32.21	127	1.34	1.25
1907	71,269	17.79	30.25	104	1.54	1.08
1908	71,783	17.00	30.31	118	1.21	1.12
1909	73,214	15.01	26.73	95	1.09	1.09
1910	74,667	18.87	28.85	129	1.16	0.96
1906-1910	72,338	17.31	29.67	114	1.26	1.10
1911	75,028	18.44	30.73	113	1.50	0.95
1912	76,337	18.70	31.30	119	1.44	1.02
1913	77,156	18.22	31.03	116	1.47	0.86
1914	77,642	18.04	32.84	108	1.00	0.91
1915	77,695	20.14	29.49	145	1.15	0.91
1911-1915	76,771	18.70	31.07	120	1.39	0.93
1916	78,642	17.10	29.20	109	1.42	0.75
1917	79,299	15.10	26.88	92	1.28	0.83
1918	79,574	17.88	26.52	110	1.10	0.82
1919	79,613	17.25	28.73	99	0.94	0.59
1920	80,436	16.51	33.34	104	1.06	0.69
1916-1920	79,512	16.76	28.93	102	1.16	0.73
1921	81,120	14.59	30.15	93	1.01	0.54
1922	81,370	19.17	27.68	149	1.03	0.68
1923	81,522	12.94	27.04	77	0.99	0.54
1924	82,096	15.22	24.16	113	1.00	0.44
1925	81,200	14.32	24.54	107	0.85	0.52
1921-1925	81,461	15.24	26.71	107	0.97	0.54
1926	81,558	13.74	23.87	90	0.98	0.34
1927	80,889	13.26	22.17	89	0.87	0.44
1928	79,204	15.74	24.05	120	0.80	0.34
1929	81,844	15.57	22.22	111	1.04	0.26
1930	82,131	13.69	22.98	96	0.88	0.30
1926-1930	81,125	14.40	23.05	101	0.91	0.33
1931	79,012	13.50	23.40	78	0.90	0.30
1932	79,387	14.63	21.47	121	0.66	0.36
1933	79,486	15.03	20.60	108	0.88	0.18

TABLE V.—SOURCES OF NOTIFICATIONS OF INFECTIOUS DISEASES—1933.

DISEASE.	BY WHOM REPORTED.							Total.
	House-holders.	House-holders & Doctors.	Doctors.	Public Health Officers.	School Medical Officers.	Registrars.	Midwives.	
Pneumonia.	...	...	64	...	...	13	...	77
Typhus Fever,	...	...	1	...	...	...	...	1
Enteric Fever,	...	...	6	...	...	...	...	6
Diphtheria,	...	13	150	...	...	...	...	163
Scarlet Fever,	...	212	909	...	...	...	...	1,121
Puerperal Fever,	...	...	2	...	...	...	...	2
Puerperal Pyrexia.	...	...	11	...	...	...	...	11
Erysipelas,	...	2	54	...	...	...	...	56
Cerebro-Spinal Meningitis.	...	...	7	...	...	...	...	7
Encephalitis Lethargica,	...	...	1	...	...	...	...	1
Malaria,	...	...	1	...	...	...	...	1
Dysentery,	...	...	5	...	...	...	...	5
Measles,	274	...	7	1	32	...	...	314
Chickenpox,	725	...	11	...	30	...	...	766
Whooping Cough,	861	...	5	...	20	...	...	886
Ophthalmia Neonatorum,	...	...	5	...	...	...	29	34
TOTAL,	1,860	227	1,230	1	82	13	29	3,451

TABLE VI.—MONTHLY INCIDENCE OF INFECTIOUS DISEASES—1933

MONTH	Malaria.	Diphtheria	Rysipelas.	Scarlet Fever.	Enteric Fever	Puerperal Fever.	Puerperal Pyrexia	Typhus Fever.	Cerebro-Spinal Meningitis.	Erysiphalitis.	Dysentery,	Pneumonia.	Chickenpox.	Measles.	Whooping Cough.	Ophthalmia Neonatorum.	Total
January,	...	17	2	60	...	...	2	...	4	...	1	27	68	70	124	2	377
February,	...	2	4	55	...	...	1	...	...	...	...	12	63	55	82	...	274
March, ...	1	4	3	57	...	...	2	...	1	...	...	4	118	74	174	3	441
April, ...	...	12	5	41	...	...	1	...	...	...	...	4	73	33	190	3	362
May, ...	...	11	6	57	...	...	...	...	...	...	...	3	88	28	174	5	372
June, ...	...	9	1	60	...	1	1	...	...	...	...	...	61	18	65	1	217
July, ...	...	9	1	65	2	...	...	1	...	...	...	4	13	2	7	3	107
August,	...	13	5	86	3	...	1	...	...	...	...	4	33	8	30	4	187
September,	...	23	4	106	...	...	1	...	...	...	...	7	25	9	12	4	191
October,	...	19	5	250	1	1	...	...	...	...	1	3	52	6	8	3	349
November	...	24	10	133	...	...	1	...	...	1	2	4	105	3	9	3	295
December,	...	20	10	151	...	...	1	...	2	...	1	5	67	8	11	3	279
TOTAL,	1	163	56	1,121	6	2	11	1	7	1	5	77	766	314	886	34	3,451

TABLE VII —DISTRICT INCIDENCE OF INFECTIOUS DISEASES WITH NUMBER OF  
REMOVALS TO HOSPITAL—1933.

DISTRICT.	CASES.	Pneumonia.	Enteric Fever	Typhus Fever.	Diphtheria.	Scarlet Fever.	Puerperal Fever.	Puerperal Pyrexia.	Erysipelas.	Cerebro-Spinal Meningitis.	Knicephalitis Lethargica.	Dysentery.	Malaria.	Ophthalmia Neonatorum.	Measles.	Chickenpox.	Whooping Cough.	Total.
A.	{ Ascertained, Removed,	28	1	1	39	365	...	2	24	6	..	2	1	29	134	358	376	1,366
B.	{ Ascertained, Removed,	10	1	1	39	364	...	1	3	...	...	...	...	..	1	1	...	412
C.	{ Ascertained, Removed,	32	1	...	34	161	1	2	8	1	1	...	...	1	27	90	146	482
D.	{ Ascertained, Removed,	7	2	...	73	407	1	7	19	...	...	2	...	4	97	237	3	202
SHIPS	{ Ascertained, Removed,	...	...	...	73	405	1	4	5	...	...	1	...	...	1	2	3	1,174
	{ Ascertained, Removed,	...	2	...	17	188	...	...	2	...	...	...	...	...	56	81	72	427
	{ Ascertained, Removed,	...	2	...	15	179	...	...	...	...	...	...	...	...	...	...	...	196
	{ Ascertained, Removed,	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
	{ Ascertained, Removed,	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
TOTAL.	{ Ascertained, Removed,	77	6	1	163	1,121	2	11	56	*7	1	5	1	34	314	766	886	3,451
		1	6	1	161	1,169	2	6	10	...	...	...	...	...	3	3	6	1,308

\* ascertained in Royal Infirmary.

2 cases had scarlet fever and diphtheria.  
1 case had scarlet fever and whooping cough.  
2 cases had scarlet fever and chickenpox.  
1 case had diphtheria and chickenpox.  
3 cases had measles and whooping cough.  
2 cases had measles and chickenpox.  
4 cases had chickenpox and whooping cough.  
(Each of these cases has thus been entered as 2 cases in the Table)

TABLE VIII.—INFECTIOUS DISEASES RATES 1900-1933.

YEAR.	SCARLET FEVER.			DIPHTHERIA.			MEASLES.			WHOPPING COUGH.		
	Incidence rate per 1000.	Death-rate per 1000.	Case mortality rate per cent.	Incidence rate per 1000.	Death-rate per 1000.	Case mortality rate per cent.	Incidence rate per 1000.	Death-rate per 1000.	Case mortality rate per cent.	Incidence rate per 1,000.	Death rate per 1,000.	Case mortality rate per cent.
1900	2.55	0.17	6.93	1.19	0.4	34.56	5.48	0.13	2.41	9.42	1.09	11.58
1901	7.92	0.42	5.36	8.93	0.17	19.67	10.82	0.35	3.24	1.87	0.36	19.53
1902	7.79	0.85	11.00	1.06	0.13	41.09	26.44	0.49	1.87	1.26	0.13	10.34
1903	2.83	0.11	4.93	0.54	0.12	23.68	0.66	0.02	4.34	6.55	1.02	15.63
1904	1.07	0.07	6.66	1.17	0.27	23.17	30.28	0.83	2.74	3.59	0.32	9.16
1905	2.81	0.32	11.61	0.83	0.21	24.19	31.31	0.82	2.63	5.50	0.76	13.95
1906	1.92	0.08	4.41	0.70	0.12	18.00	4.04	0.12	3.14	2.54	0.28	11.11
1907	2.16	0.05	2.59	0.75	0.14	18.51	19.68	0.46	2.35	3.70	0.68	18.56
1908	0.97	0.01	1.42	0.72	0.16	23.07	14.76	0.58	3.96	3.63	0.47	13.02
1909	2.89	0.04	1.41	1.05	0.13	12.98	1.73	0.02	1.57	4.73	0.65	13.83
1910	5.02	0.14	2.93	1.27	0.18	14.73	38.45	1.21	3.16	3.87	0.45	11.76
1911	5.18	0.18	3.59	1.94	0.09	9.85	4.45	0.17	3.89	5.85	0.42	7.23
1912	10.02	0.49	4.96	1.21	0.13	10.75	19.93	0.66	3.35	4.12	0.36	8.88
1913	5.59	0.24	4.39	1.03	0.18	17.50	19.95	0.41	2.07	9.40	0.63	6.74
1914	2.65	0.05	1.94	1.76	0.12	7.29	11.86	0.33	2.82	4.22	0.33	7.92
1915	1.90	0.11	6.08	1.72	0.16	9.70	14.82	0.65	4.58	9.38	0.73	7.81
1916	3.73	0.76	2.04	1.61	0.19	11.81	17.16	0.35	5.55	0.72	0.95	7.01
1917	2.74	0.06	2.29	1.23	0.12	10.20	10.12	0.20	1.99	11.43	0.80	7.05
1918	1.36	0.01	0.91	0.70	0.03	5.35	10.19	1.25	12.33	4.53	0.33	7.47
1919	8.95	0.06	1.58	1.10	0.03	3.40	15.26	0.32	2.13	2.36	0.16	6.91
1920	1.47	0.04	3.36	1.28	0.07	5.82	5.71	0.24	4.34	6.88	0.27	3.97
1921	1.31	0.01	0.93	1.76	0.07	4.19	3.69	0.00	0.00	0.62	0.00	0.00
1922	1.36	0.01	0.90	1.04	0.08	8.23	36.32	2.17	5.98	18.31	0.98	5.86
1923	4.90	0.07	1.50	1.37	0.07	5.35	6.31	0.14	2.33	0.41	0.02	5.88
1924	2.64	0.06	2.30	1.79	0.06	3.40	23.02	0.59	2.59	15.87	0.54	3.45
1925	1.21	0.01	1.01	2.11	0.09	4.65	1.07	0.00	0.00	6.83	0.39	5.76
1926	3.85	0.00	0.00	3.33	0.13	4.04	24.57	0.46	1.89	0.71	0.01	1.72
1927	3.48	0.06	1.77	3.20	0.03	1.15	7.76	0.02	0.37	5.24	0.09	1.88
1928	0.84	0.01	1.49	2.91	0.17	6.06	29.49	1.02	3.46	8.53	0.51	6.06
1929	2.02	0.00	0.00	2.41	0.07	3.03	0.52	0.02	4.64	6.25	0.46	7.44
1930	3.61	0.08	2.35	1.57	0.06	3.87	25.09	0.34	1.35	6.24	0.18	2.92
1931	3.69	0.07	2.05	1.06	0.03	3.57	1.48	0.00	0.00	3.97	0.11	2.86
1932	10.69	0.12	1.17	1.44	0.05	3.47	38.04	0.90	2.38	3.30	0.05	1.90
1933	14.10	0.11	0.80	2.05	0.10	4.90	3.95	0.00	0.00	11.14	0.55	4.96

